#### **Supplementary Online Content**

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This supplementary material has been provided by the authors to give readers additional information about their work.

eTable1. ERAS Compliance Definitions

	ERAS included individual items	Definitions of ERAS Compliance for Included individual items
1	Presurgical education	Received verbal and written ERAS education at a dedicated preadmission visit
2	Presurgical optimization	Patients stopped smoking 4 weeks before surgery and alcoholics ceased all alcohol consumption 4 weeks before surgery.
3	Preoperative fasting	Pre-operative fasting limited to 2 hours for clear liquids (water, coffee, juice without pulp); and at 6 hours for solids.
4	Patient Blood Management	Set of measures applied to optimize preoperative hemoglobin, avoid bleeding and avoid transfusion
5	Preoperative carbohydrate drinks preload	Given preoperative carbohydrate drink. Defined as at least 50 g carbohydrate in at least 400 mL fluid in the form of a dedicated preoperative beverage with a proven safety profile. Given up until 2 hours before anesthesia.
6	Avoidance of long-acting sedative premedication	No long acting sedative premedication given (eg, opioids, sedative antihistamines, and neuroleptics)
7	Thromboprophylaxis	Given thromboprophylaxis. Low-molecular-weight heparin and compression stockings
8	Antibiotic prophylaxis	Given antibiotic prophylaxis before skin incision
9	Regional anesthesia	Anesthetic procedure that allows rapid awakening, adequate analgesia and patient recovery. The item is considered positive provided that any major anesthetic technique (spinal anesthesia or general anesthesia) is accompanied by local or locoregional anesthesia techniques; or continuous epidural anesthesia
10	PONV prophylaxis	Given PONV prophylaxis
11	Active prevention of unintentional hypothermia	Use of fluid heaters and / or thermal blanket for all patients during the surgical procedure
12	Goal Directed Fluid Therapy	Intravenous fluid administration guided by hemodynamic goals. Based on cardiac output or derived monitoring by any validated cardiac output monitoring.
13	Postoperative analgesia	A multimodal analgesic management that includes at least 2 drugs in order to avoid or reduce the administration of morphics.
14	Postoperative glycemic control	Patients receive glycemic control in the first 24 hours. For target glycemia <180g / dl
15	Early mobilization	Defined as the patient move at least to armchair in the first 12 postoperative hours.
16	Early feeding	Defined as the patient tolerates oral feeding in the first 6 postoperative hours.

ERAS: Enhanced Recovery After Surgery; PONV: Postoperative nausea and vomiting (adapted from<sup>15</sup>)

eTable 2. Predefined Mild-Moderate-Severe Overall Postoperative Complications A: according EPCO definitions  $^{22}$ .

Complication	Definition	Graduation
Acute Kidney Injury	<ul> <li>Mild: Serum creatinine Increase of 1.5-1.9 times baseline value within 7 days or ≥0.3mg/dL (30 μmol/L) within 48 hours. Urine output ≤0.5ml/kg/h for 6-12 hours</li> <li>Moderate: Serum creatinine Increase of 2.0-2.9 times baseline value within 7 days. Urine output ≤0.5 ml/kg/h for 12 hours.</li> <li>Severe: Serum creatinine Increase of 3.0 times baseline within 7 days or increase in serum creatinine to ≥4.0 mg/dL (≥350 μmol/L) with an acute rise of &gt;0.5 mg/dL (&gt;50 μmol/L) or initiation of renal replacement therapy. Urine output ≤0.3 ml/kg/h for 24 hours or Anuria for 12 hours.</li> </ul>	Included in definition
Acute Respiratory Distress Syndrome (ARDS)	Respiratory failure, or new or worsening respiratory symptoms, commencing within one week of surgery; and a chest radiograph or computed tomography scan which demonstrates bilateral opacities not fully explained by effusions, lobar/lung collapse, or nodules; and respiratory failure not fully explained by cardiac failure or fluid overload. Need objective assessment (e.g. echocardiography) to exclude hydrostatic oedema if no risk factor present.	<ul> <li>Mild: PaO<sub>2</sub>:FiO<sub>2</sub> between 200 and 300 mmHg with PEEP or CPAP ≥5 cmH<sub>2</sub>O</li> <li>Moderate: PaO<sub>2</sub>:FiO<sub>2</sub> between 100 and 200 mmHg with PEEP ≥5 cmH<sub>2</sub>O</li> <li>Severe: PaO<sub>2</sub>:FiO<sub>2</sub> ≤100 mmHg with PEEP ≥5 cmH<sub>2</sub>O</li> </ul>
Pneumonia	Chest radiographs with new or progressive and persistent infiltrates, or consolidation, or cavitation, and at least one of the following:  a)Fever (>38°C) with no other recognized cause b)Leucopaenia (<4,000 white blood cells/mm3) or leucocytosis (>12,000 white blood cells/mm3) c)For adults >70 years old, altered mental status with no other recognised causeand at least two of the following:  - New onset of purulent sputum or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements  - New onset or worsening cough, or dyspnoea, or tachypnoea  - Râles or bronchial breath sounds  - Worsening gas exchange (hypoxia, increased oxygen or ventilator demand)	<ul> <li>Mild: Results in only temporary harm and would not usually require specific clinical treatment.</li> <li>Moderate: More serious complication but one which does not usually result in permanent harm or functional limitation. Usually requires clinical treatment.</li> <li>Severe: Results in significant prolongation of hospital stay and/or permanent functional limitation or death. Almost always requires clinical treatment.</li> </ul>

Cardiac arrest	The cessation of cardiac mechanical activity, as confirmed by the absence of signs of circulation. ECG changes may corroborate the incidence of cardiac arrest.	None: Binary (yes/no)
Arrhythmia	Electrocardiograph (ECG) evidence of cardiac rhythm disturbance.	<ul> <li>Mild: Results in only temporary harm and would not usually require specific clinical treatment.</li> <li>Moderate: More serious complication but one which does not usually result in permanent harm or functional limitation. Usually requires clinical treatment.</li> <li>Severe: Results in significant prolongation of hospital stay and/or permanent functional limitation or death. Almost always requires clinical treatment.</li> </ul>
Deep vein thrombosis	A new blood clot or thrombus within the venous system. Systematic screening is required in trials in which DVT is an important outcome measure. Appropriate diagnostic tests include ultrasound, venography, CT or MRI venography	<ul> <li>Mild: Results in only temporary harm and would not usually require specific clinical treatment.</li> <li>Moderate: More serious complication but one which does not usually result in permanent harm or functional limitation. Usually requires clinical treatment.</li> <li>Severe: Results in significant prolongation of hospital stay and/or permanent functional limitation or death. Almost always requires clinical treatment.</li> </ul>
Stroke	Embolic, thrombotic, or haemorrhagic cerebral event with persistent residual motor, sensory, or cognitive dysfunction (e.g. hemiplegia, hemiparesis, aphasia, sensory deficit, impaired memory).	<ul> <li>Mild: Results in only temporary harm and would not usually require specific clinical treatment.</li> <li>Moderate: More serious complication but one which does not usually result in permanent harm or functional limitation. Usually requires clinical treatment.</li> <li>Severe: Results in significant prolongation of hospital stay and/or permanent functional limitation or death. Almost always requires clinical treatment.</li> </ul>

Pulmonary oedema	Evidence of fluid accumulation in the alveoli due to poor cardiac function.	<ul> <li>Mild: Results in only temporary harm and would not usually require specific clinical treatment.</li> <li>Moderate: More serious complication but one which does not usually result in</li> </ul>
		permanent harm or functional limitation. Usually requires clinical treatment.  - Severe: Results in significant prolongation of hospital stay and/or permanent functional limitation or death. Almost always requires clinical treatment.
Pulmonary embolism	A new blood clot or thrombus within the pulmonary arterial system. Guidance: Appropriate diagnostic tests include scintigraphy and CT angiography. Plasma D- dimer measurement is not recommended as a diagnostic test in the first three weeks following surgery.	<ul> <li>Mild: Results in only temporary harm and would not usually require specific clinical treatment.</li> <li>Moderate: More serious complication but one which does not usually result in permanent harm or functional limitation. Usually requires clinical treatment.</li> <li>Severe: Results in significant prolongation of hospital stay and/or permanent functional limitation or death. Almost always requires clinical treatment.</li> </ul>
Surgical site infection (superficial)	Infection involving only superficial surgical incision which meets the following criteria:  1)Infection occurs within 30 days after surgery and  2)Involves only skin and sub-cutaneous tissues of the incision and  3)The patient has at least one of the following:  a) Purulent drainage from the superficial incision  b) Organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision and at least one of the following signs or symptoms of infection: pain or tenderness, localized swelling, redness, or heat, or superficial incision is deliberately opened by surgeon and is culture positive or not cultured. A culturenegative finding does not meet this criterion.  c) Diagnosis of a incisional surgical site infection by a surgeon or attending physician	<ul> <li>Mild: Results in only temporary harm and would not usually require specific clinical treatment.</li> <li>Moderate: More serious complication but one which does not usually result in permanent harm or functional limitation. Usually requires clinical treatment.</li> <li>Severe: Results in significant prolongation of hospital stay and/or permanent functional limitation or death. Almost always requires clinical treatment.</li> </ul>

# Surgical site infection (deep)\*

- An infection which involves both superficial and deep parts of surgical incision and meets the following criteria:
- 1) Infection occurs within 30 days after surgery if no surgical implant is left in place or one year if an implant is in place and
- 2) The infection appears to be related to the surgical procedure and involves deep soft tissues of the incision (e.g. fascial and muscle layers) and
- 3) The patient has at least one of the following:
- a) Purulent drainage from the deep incision but not from the organ/space component of the surgical site
- b) A deep incision spontaneously dehisces or is deliberately opened by a surgeon and is culture-positive or no cultures were taken whilst the patient has at least one of the following signs or symptoms of infection: fever (>38°C) or localized pain or tenderness. A culture-negative finding does not meet this criterion.
- c) An abscess or other evidence of infection involving the deep incision is found on direct examination, during surgery, or by histopathologic or radiologic examination d) Diagnosis of a deep incisional surgical site infection by a surgeon or attending physician

- Mild: Results in only temporary harm and would not usually require specific clinical treatment.
- Moderate: More serious complication but one which does not usually result in permanent harm or functional limitation. Usually requires clinical treatment.
- Severe: Results in significant prolongation of hospital stay and/or permanent functional limitation or death. Almost always requires clinical treatment.

# Surgical site infection (organ/space)

An infection which involves any part of the body excluding the fascia or muscle layers and meets the following criteria:

- 1) Infection occurs within 30 days after surgery and
- 2) The infection appears to be related to the surgical procedure and involves any part of the body, excluding the skin incision, fascia, or muscle layers, that is opened or manipulated during the operative procedure and
- 3) The patient has at least one of the following:
- a) Purulent drainage from a drain that is placed through a stab wound into the organ/space
- b) Organisms isolated from an aseptically obtained culture of fluid or tissue in the organ/space
- c) An abscess or other evidence of infection involving the organ/space that is found on direct examination, during reoperation, or by histopathologic or radiologic examination
- d) Diagnosis of an organ/space surgical site

- Mild: Results in only temporary harm and would not usually require specific clinical treatment.
- Moderate: More serious complication but one which does not usually result in permanent harm or functional limitation. Usually requires clinical treatment.
- Severe: Results in significant prolongation of hospital stay and/or permanent functional limitation or death. Almost always requires clinical treatment.

Bloodstream infection	infection by a surgeon or attending physician  An infection which is not related to infection at another site and which meets either of the following criteria:  1)Patient has a recognised pathogen cultured from blood cultures which is not related to an infection at another site 2)Patient has at least one of the following signs or symptoms: fever (>38°C), chills, or hypotension and at least one of the following:  a) Common skin contaminant cultured from two or more blood cultures drawn on separate occasions b) Common skin contaminant cultured from at least one blood culture from a patient with an intravascular line, and a physician starts antimicrobial therapy c) Positive blood antigen test	<ul> <li>Mild: Results in only temporary harm and would not usually require specific clinical treatment.</li> <li>Moderate: More serious complication but one which does not usually result in permanent harm or functional limitation. Usually requires clinical treatment.</li> <li>Severe: Results in significant prolongation of hospital stay and/or permanent functional limitation or death. Almost always requires clinical treatment.</li> <li>Mild: Results in only</li> </ul>
infarction	(preferably cardiac troponin) with at least one value above the 99th percentile upper reference limit and at least one of the following criteria:  - Symptoms of ischaemia - New or presumed new ST-segment or T-wave ECG changes or new left bundle branch block - Development of pathological Q-waves on ECG - Radiological or echocardiographic evidence of new loss of viable myocardium or new regional wall motion abnormality - Identification of an intra-coronary thrombus at angiography or autopsy	<ul> <li>Mila: Results in only temporary harm and would not usually require specific clinical treatment.</li> <li>Moderate: More serious complication but one which does not usually result in permanent harm or functional limitation. Usually requires clinical treatment.</li> <li>Severe: Results in significant prolongation of hospital stay and/or permanent functional limitation or death. Almost always requires clinical treatment.</li> </ul>
Urinary tract infection	An infection associated with at least one of the following signs or symptoms which should be identified within a 24 hour period: Fever (>38 °C), urgency, frequency, dysuria, suprapubic tenderness, costovertebral angle pain or tenderness with no other recognised cause and a positive urine culture of ≥105 colony forming units/mL with no more than two species of microorganisms	<ul> <li>Mild: Results in only temporary harm and would not usually require specific clinical treatment.</li> <li>Moderate: More serious complication but one which does not usually result in permanent harm or functional limitation. Usually requires clinical treatment.</li> <li>Severe: Results in significant prolongation of hospital stay and/or permanent functional limitation or death. Almost always requires clinical</li> </ul>

		treatment.
Paralytic ileus	Failure to tolerate solid food or defecate for three or more days after surgery.	<ul> <li>Mild: Results in only temporary harm and would not usually require specific clinical treatment.</li> <li>Moderate: More serious complication but one which does not usually result in permanent harm or functional limitation. Usually requires clinical treatment.</li> <li>Severe: Results in significant prolongation of hospital stay and/or permanent functional limitation or death. Almost always requires clinical treatment.</li> </ul>
Delirium	Delirium may be identified using the Intensive Care Delirium Screening Checklist. Patients are first evaluated for an altered level of consciousness. Those with a response to mild or moderate stimulation, an exaggerated response to stimulation or normal wakefulness are evaluated fully. Patients receive one point for each of the following criteria: inattention, disorientation, hallucination-delusion-psychosis, psychomotor agitation or retardation, inappropriate speech or mood, sleep/wake cycle disturbance or symptom fluctuation.	Integrated into definition
Post-operative haemorrhage	Blood loss occurring within 72 hours after the end of surgery which would normally result in transfusion of blood	Type 1: not significant bleeding, does not require studies or consultation to a medical service, hospitalization or management by a health professional. It may include the voluntary suspension of antithrombotic medication by the patient. Example: nasal bleeding, bruising, hemorrhoidal bleeding, in general, medical attention is not sought.  Type 2: Any sign of hemorrhage (any bleeding that is more than expected, including bleeding only identified by an imaging study), that does not meet criteria for type 3, 4 or 5 but requires at least one of the following points:  Non-surgical medical intervention by a health professional (examples include stopping antiplatelet, antithrombotic medication, compression at the bleeding site, use of drugs to reverse the effect such as: protamine and vitamin k).  Requires hospitalization or

increased level of care. • Requires prompt evaluation with tests such as: blood count, urinalysis, coagulation tests, endoscopy and tomography. Type 3 • Type 3 to: • Bleeding with a decrease in hemoglobin from ≥ 3 to <5 g / dl (related to bleeding). • Any need for transfusion due to obvious bleeding. Type 3 b: • Decrease in hemoglobin ≥ 5 g / dl (related to bleeding). • Cardiac tamponade. • Bleeding that requires surgical intervention for its control (excluding nasal, dental, skin, hemorrhoids). Bleeding that requires the use of vasoactive agents. • Type 3 c: • Intracranial hemorrhage (does not include microbleeds or hemorrhagic transformation, includes intraspinal bleeding). Subcategories confirmed by autopsies or images or lumbar puncture. • Intraocular bleeding with compromised vision. Type 4: bleeding associated with myocardial revascularization. • Perioperative intracranial bleeding within 48 hours. • Reoperation after closure of sternotomy with the purpose of controlling bleeding. • Transfusion of ≥ 5 units of red blood cells, within a period of 48 hours. • Chest tube expenditure ≥ 2 liters in 24 hours. Type 5: fatal bleeding • Type 5 a: Probable fatal bleeding: with clinical suspicion but not verified by autopsy or imaging.

• Type 5 b: Definitive fatal bleeding: confirmed by imaging or autopsy. Bleeding is specified as: intracranial,

gastrointestinal, pulmonary, pericardial, genitourinary, or other.

### B: Specific Surgical complications Definitions and stratification of TKAs complications<sup>23</sup>

ESR = erythrocyte sedimentation rate; CRP = C-reactive protein; WBC = white blood cell count; PMN = polymorphonuclear cells.

Complication	Definition	Graduation
Neural deficit	Postoperative neural deficit (sensory or motor) related to the index TKR	<ul> <li>Mild: Results in only temporary harm and would not usually require specific clinical treatment.</li> <li>Moderate: More serious complication but one which does not usually result in permanent harm or functional limitation. Usually requires clinical treatment.</li> <li>Severe: Results in significant prolongation of hospital stay and/or permanent functional limitation or death. Almost always requires clinical treatment.</li> </ul>
Vascular injury	Intraoperative vascular injury requiring surgical repair, bypass grafting, or stenting (compartment syndrome or amputation should be reported)	<ul> <li>Mild: Not applicable</li> <li>Moderate: Complication requires unplanned surgical treatment, prolonged hospital admission or readmission (surgical treatment and / or admission)</li> <li>Severe:The complication is associated with an event that threatens the limb or puts lifethreatening, which requires immediate invasive treatment; or it leads to the death of the patient</li> </ul>
Medial collateral ligament injury	Intraoperative or early postoperative medial collateral ligament injury requiring repair, reconstruction, a change in prosthetic constraint, revision surgery, or TKA protocol	<ul> <li>Mild: The complication does not require treatment and has no clinical relevance; there is no deviation from routine follow-up; the therapeutic regimens allowed include: antiemetics, antipyretics, analgesics, diuretics, electrolytes, antibiotics (without treatment) or a slight change in care with a low-intensity outpatient treatment (non-surgical treatment)</li> <li>Moderate: Complication requires unplanned surgical treatment, prolonged hospital admission or readmission (surgical treatment and / or admission)</li> <li>Severe: The complication is associated with an event that threatens the limb or puts lifethreatening, which requires immediate invasive treatment; or</li> </ul>

Instability	Symptomatic instability reported by the patient and confirmed by laxity on physical examination as defined by The Knee Society Knee Score	<ul> <li>Mild: The complication does not require treatment and has no clinical relevance; there is no deviation from routine follow-up; the therapeutic regimens allowed include: antiemetics, antipyretics, analgesics, diuretics, electrolytes, antibiotics (without treatment) or a slight change in care with a low-intensity outpatient treatment (non-surgical treatment)</li> <li>Moderate: Complication requires unplanned surgical treatment, prolonged hospital admission or readmission (surgical treatment and / or admission)</li> <li>Severe: The complication is associated with an event that threatens the limb or puts life-threatening, which requires immediate invasive treatment; or it leads to the death of the patient</li> </ul>
Malalignment	ESymptomatic malalignment reported by the patient and confirmed radiographically with angular deformity in the coronal plane > 10° from the mechanical axis	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe:: In case the reoperation leads to more complications</li> </ul>
Stiffness	Limited ROM as reported by the patient and demonstrated in a physical examination with extension limited to 15° short of full extension or flexion < 90° (not applicable if preoperative arc of motion < 75°)	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe:: In case the reoperation leads to more complications</li> </ul>
Deep periprosthetic joint infection	A deep periprosthetic joint infection can be diagnosed when there is a sinus tract communicating with the prosthesis; or a pathogen is isolated by culture from at least two separate tissue or fluid samples obtained from the affected prosthetic joint; or 4 of the following 6 criteria exist: elevated ESR and serum CRP concentration; elevated synovial WBC count; elevated synovial PMN; presence of purulence in the affected joint; isolation of a microorganism in one culture of periprosthetic tissue or fluid; or > 5 neutrophils/high-power field in 5 high-power fields observed from histologic analysis of periprosthetic tissue at ×400 magnification	<ul> <li>Mild: Not applicable</li> <li>Moderate: Successfully treated infection</li> <li>Severe: if resection arthroplasty or permanent disability or death occurs</li> </ul>

Periprosthetic fracture	Periprosthetic fracture of the distal femur, proximal tibia, or patella (operative or nonoperative treatment should be recorded)	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>
Extensor mechanism disruption	Disruption of the extensor mechanism (surgical repair and/or extensor lag should be recorded)	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>
Patellofemoral dislocation	Dislocation of the patella from the femoral trochlea (direction of instability should be recorded)	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>
Tibiofemoral dislocation	Dislocation of the tibiofemoral joint (direction of instability should be recorded)	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>
Bearing surface wear	Wear of the bearing surface symptomatic or requiring reoperation	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>
Osteolysis	Expansile lytic lesion adjacent to one of the implants ≥ 1 cm in any one dimension or increasing in size on serial radiographs/CT scans	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>
Implant loosening	Implant loosening confirmed intraoperatively or identified radiographically as a change in implant position or a progressive, radiolucent line at the bone-cement or bone-implant interface	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>
Implant fracture or tibial insert dissociation	Implant fracture or dissociation of the tibial insert from the tibial implant	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>
Reoperation	Return to the operating room related to the index TKRs	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>
Revision	Revision of one or more of the TKA implants (femur, tibia, tibial insert, patella)	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>

#### Definitions and stratification of THAs complications<sup>24</sup>

ESR = erythrocyte sedimentation rate; CRP = C-reactive protein; WBC = white blood cell count; PMN = polymorphonuclear cells.

Complication	Definition	Graduation
Neural deficit	Postoperative neural deficit (sensory or motor) related to the index THR (ICD-9 997.09)	<ul> <li>Mild: Results in only temporary harm and would not usually require specific clinical treatment.</li> <li>Moderate: More serious complication but one which does not usually result in permanent harm or functional limitation. Usually requires clinical treatment.</li> <li>Severe: Results in significant prolongation of hospital stay and/or permanent functional limitation or death. Almost always requires clinical treatment.</li> </ul>
Vascular injury	Intraoperative vascular injury requiring surgical repair, bypass grafting, or stenting (compartment syndrome or amputation should be reported)	<ul> <li>Mild: Not applicable</li> <li>Moderate: Complication         requires unplanned surgical         treatment, prolonged hospital         admission or readmission         (surgical treatment and / or         admission)</li> <li>Severe:The complication is         associated with an event that         threatens the limb or puts lifethreatening, which requires         immediate invasive treatment;         or it leads to the death of the         patient</li> </ul>
Dislocation/instability	Dislocation of the femoral head out of the acetabulum or recurrent symptomatic subluxation of the hip	- Mild: The complication does not require treatment and has no clinical relevance; there is no deviation from routine follow- up; the therapeutic regimens allowed include: antiemetics, antipyretics, analgesics, diuretics, electrolytes, antibiotics (without treatment) or a slight change in care with a low-intensity outpatient treatment (non-surgical treatment) - Moderate: Complication requires unplanned surgical treatment, prolonged hospital admission or readmission (surgical treatment and / or admission) - Severe: The complication is

Abductor muscle disruption	Symptomatic abductor dysfunction, which was not present before the operation, associated with positive Trendelenburg sign and use of an ambulatory assist (cane, crutch, walker) for treatment of limp or weakness	associated with an event that threatens the limb or puts life- threatening, which requires immediate invasive treatment; or it leads to the death of the patient - Mild: Not applicable - Moderate: Surgery required - Severe:: In case the reoperation leads to more complications
Heterotopic ossification	Symptomatic heterotopic ossification at 1 year after operation associated with stiffness, reduced ROM, and radiographic grade of Brooker III or IV	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe:: In case the reoperation leads to more complications</li> </ul>
Deep periprosthetic joint infection	A deep periprosthetic joint infection can be diagnosed when there is a sinus tract communicating with the prosthesis; or a pathogen is isolated by culture from at least two separate tissue or fluid samples obtained from the affected prosthetic joint; or 4 of the following 6 criteria exist: elevated ESR and serum CRP concentration, elevated synovial WBC count; elevated synovial PMN; presence of purulence in the affected joint; isolation of a microorganism in one culture of periprosthetic tissue or fluid; or > 5 neutrophils/high-power field in 5 high-power fields observed from histologic analysis of periprosthetic tissue at x 400 magnification	<ul> <li>Mild: Not applicable</li> <li>Moderate: Successfully treated infection</li> <li>Severe: if resection arthroplasty or permanent disability or death occurs</li> </ul>
Periprosthetic fracture	Periprosthetic fracture of the proximal femur or the acetabulum .	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>
Implant fracture	Implant fracture	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation</li> <li>leads to more complications</li> </ul>
Bearing surface wear	Wear of the bearing surface symptomatic or requiring reoperation	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>

Osteolysis	Expansile lytic lesion adjacent to one of the implants ≥ 1 cm in any one dimension or increasing in size on serial radiographs/CT scans	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>
Implant loosening	Implant loosening confirmed intraoperatively or identified radiographically as a change in implant position or a progressive radiolucent line at the bonecement or bone-implant interface	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>
Cup-liner dissociation	Dissociation of the cup liner from the acetabular shell	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>
Reoperation	Return to the operating room related to the index TKRs	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>
Revision	Revision of one or more of the TKA implants (femur, tibia, tibial insert, patella)	<ul> <li>Mild: Not applicable</li> <li>Moderate: Surgery required</li> <li>Severe: In case the reoperation leads to more complications</li> </ul>

eTable 3. Patient Characteristics by ERAS Adherence

eTable 3. Patient Characteris			EDAG	EDAG	EDAG
	No.%	ERAS	ERAS	ERAS	ERAS
		adherence	adherence	adherence	adherence > 62.5%
		<=43.75%	>43.75% but <=50%	>50% but <=62.5%	> 02.5%
	N=6146	N=2076	N=1079	N=1636	N=1355
Age, median (IQR)	71.0	70.0	71.0	71.0	71.0
Age, median (IQK)	[63.0;76.0]	[63.0;76.0]	[64.0;76.0]	[64.0;76.2]	[63.0;76.0]
Men	2566	900 (43.4%)	427 (39.6%)	669 (40.9%)	570
Wich	(41.8%)	700 (43.470)	427 (37.070)	(40.570)	(42.1%)
BMI, median (IQR)	29.3	29.3	29.4	29.4	29.3
Divir, mountain (1Q10)	[26.4;32.9]	[26.4;32.8]	[26.4;32.9]	[26.4;32.8]	[26.4;32.9]
ASA classification	[======================================	[==::,==:=]	[==::,==:>]	[==::,==:=]	[======================================
ASA I	391	126 (6.07%)	69 (6.39%)	102 (6.24%)	94 (6.94%)
	(6.36%)	, ,	, ,	, ,	, ,
ASA II	4136	1371	704 (65.2%)	1108	953
	(67.3%)	(66.0%)		(67.8%)	(70.3%)
ASA III	1575	561 (27.0%)	302 (28.0%)	413 (25.3%)	299
	(25.6%)				(22.1%)
ASA IV	43 (0.70%)	18 (0.87%)	4 (0.37%)	12 (0.73%)	9 (0.66%)
ASA Groups:					
ASA I-II	4527	1497	773 (71.6%)	1210	1047
	(73.7%)	(72.1%)		(74.0%)	(77.3%)
ASA III-IV	1618	579 (27.9%)	306 (28.4%)	425 (26.0%)	308
	(26.3%)				(22.7%)
Exsmoker	1005	332 (16.0%)	181 (16.8%)	268 (16.4%)	224
	(16.4%)				(16.5%)
Smoking	699	239 (11.5%)	114 (10.6%)	182 (11.1%)	164
	(11.4%)				(12.1%)
Frailty, median (IQR)	3.00	3.00	3.00	3.00	3.00
**	[2.00;3.00]	[2.00;4.00]	[2.00;4.00]	[2.00;4.00]	[2.00;3.00]
Hypertension	3647	1220	635 (58.9%)	983 (60.1%)	809
D'alare	(59.3%)	(58.8%)	222 (20 70/)	227 (20 00/)	(59.7%)
Diabetes	1140	325 (15.7%)	223 (20.7%)	327 (20.0%)	265
Coronary arterial disease	(18.5%)	122 (5.88%)	67 (6.21%)	93 (5.68%)	(19.6%) 78 (5.76%)
Coronary arterial disease	(5.86%)	122 (3.88%)	07 (0.21%)	93 (3.08%)	/8 (3.76%)
Heart failure	158	54 (2.60%)	26 (2.41%)	38 (2.32%)	40 (2.95%)
Ticart famule	(2.57%)	34 (2.00%)	20 (2.41 /0)	36 (2.3270)	40 (2.9370)
Cirrhosis	52 (0.85%)	17 (0.82%)	9 (0.83%)	14 (0.86%)	12 (0.89%)
Stroke	288	81 (3.90%)	64 (5.93%)	74 (4.52%)	69 (5.09%)
Stoke	(4.69%)	01 (3.5070)	01 (3.2370)	71(1.3270)	0) (3.0)/0)
Atrial Fibrilation	421	137 (6.60%)	97 (8.99%)	100 (6.11%)	87 (6.42%)
	(6.85%)	(0.007,0)	, (0.55,10)		
COPD/Asthma	694	244 (11.8%)	102 (9.45%)	193 (11.8%)	155
	(11.3%)	, , ,	, ,	, ,	(11.4%)
Chronic Kidney disease	332	103 (4.96%)	48 (4.45%)	73 (4.46%)	108
•	(5.40%)				(7.97%)
Peripheral vasculopathy	281	90 (4.34%)	42 (3.89%)	89 (5.44%)	60 (4.43%)
	(4.57%)				
Rheumatoid arthritis	126	48 (2.31%)	26 (2.41%)	30 (1.83%)	22 (1.62%)
	(2.05%)				
Dementia	66 (1.07%)	23 (1.11%)	16 (1.48%)	16 (0.98%)	11 (0.81%)
Hemoglobine, median	14.0	14.1	14.0	14.1	14.0
(IQR) g/dl	[13.1;15.0]	[13.1;15.0]	[13.1;14.9]	[13.2;15.0]	[13.1;15.0]
Creatinine, median (IQR)	0.80	0.80	0.80	0.80	0.80
mg/dl	[0.70;0.95]	[0.69;0.94]	[0.68;0.96]	[0.70;0.95]	[0.70;0.95]
THA	2301	915 (44.1%)	357 (33.1%)	548 (33.5%)	481
	(37.4%)		J		(35.5%)

TKA	3845	1161	722 (66.9%)	1088	874
	(62.6%)	(55.9%)	, ,	(66.5%)	(64.5%)
Time of surgery, median	90.0	90.0	90.0	90.0	90.0
(IQR)	[75.0;110]	[75.0;115]	[74.0;110]	[75.0;115]	[70.0;105]
General anesthesia	460	160 (7.71%)	62 (5.75%)	141 (8.62%)	97 (7.16%)
	(7.48%)				
Intradural anesthesia	5679	1925	1024	1495	1235
	(92.4%)	(92.7%)	(94.9%)	(91.4%)	(91.1%)
Epidural anesthesia	388	149 (7.18%)	73 (6.77%)	100 (6.11%)	66 (4.87%)
	(6.31%)				
Regional anesthesia	927	244 (11.8%)	185 (17.1%)	302 (18.5%)	196
	(15.1%)				(14.5%)
Local anesthesia	252	43 (2.07%)	19 (1.76%)	69 (4.22%)	121
	(4.10%)				(8.93%)
Crystalloid administered,	1000	1000	1000	1000	800
median (IQR) ml	[700;1200]	[750;1200]	[700;1200]	[700;1200]	[500;1000]
Colloid administered,	0.00	0.00	0.00	0.00	0.00
median (IQR) ml	[0.00;0.00]	[0.00;0.00]	[0.00;0.00]	[0.00;0.00]	[0.00;500]
Red blood cell transfusion	61 (0.99%)	28 (1.35%)	10 (0.93%)	12 (0.73%)	11 (0.81%)
Red blood cell transfuded	445	325	500	500	500
volume, median (IQR) ml	[260;560]	[262;500]	[250;624]	[260;500]	[360;715]
Blood loss, median (IQR),	200	200	200	200	200
ml	[100;350]	[100;350]	[100;300]	[100;350]	[100;400]
Tranexamic acid	4539	1394	817 (75.8%)	1237	1091
	(74.2%)	(67.2%)		(75.7%)	(82.0%)

eTable 4. Postoperative Outcomes in Patients Undergoing Total Hip Arthroplasty

	All N=2301	NO ERAS	ERAS N=590	OR	Ρ.
	10 (1 = 10)	N=1711		0.70	value
Acute kidney injury	40 (1.74%)	34 (1.99%)	6 (1.02%)	0.52 [0.19;1.16]	0.115
Acute respiratory distress syndrome	1 (0.04%)	1 (0.06%)	0 (0.00%)	. [.;.]	
Pneumonia	7 (0.30%)	6 (0.35%)	1 (0.17%)	0.54 [0.02;3.28]	0.554
Arrythmia	17 (0.74%)	12 (0.70%)	5 (0.85%)	1.23 [0.38;3.38]	0.705
Myocardial infarction	3 (0.13%)	3 (0.18%)	0 (0.00%)	.[.;.]	
MINS	2 (0.09%)	2 (0.12%)	0 (0.00%)	. [.;.]	•
Cardiac arrest	4 (0.17%)	3 (0.18%)	1 (0.17%)	1.05 [0.04;9.09]	0.967
Pulmonary oedema	7 (0.30%)	6 (0.35%)	1 (0.17%)	0.54 [0.02;3.28]	0.554
Deep vein thrombosis	7 (0.30%)	6 (0.35%)	1 (0.17%)	0.54 [0.02;3.28]	0.554
Infection (uncertain source)	15 (0.65%)	14 (0.82%)	1 (0.17%)	0.23 [0.01;1.17]	0.083
Bloodstream infection	19 (0.83%)	14 (0.82%)	5 (0.85%)	1.06 [0.33;2.81]	0.917
Surgical site infection (superficial)	31 (1.35%)	25 (1.46%)	6 (1.02%)	0.71 [0.26;1.63]	0.437
Surgical site infection (deep)	11 (0.48%)	8 (0.47%)	3 (0.51%)	1.12 [0.23;3.99]	0.869
Periprosthetic infection	8 (0.35%)	4 (0.23%)	4 (0.68%)	2.91 [0.65;12.9]	0.153
Urinary tract infection	18 (0.78%)	13 (0.76%)	5 (0.85%)	1.14 [0.36;3.07]	0.811
Paralytic ileus	19 (0.83%)	15 (0.88%)	4 (0.68%)	0.79 [0.22;2.22]	0.681
Postoperative hemorrhage	104 (4.52%)	92 (5.38%)	12 (2.03%)	0.37 [0.19;0.65]	< 0.001
Surgical Complications	48 (2.09%)	35 (2.05%)	13 (2.20%)	1.09 [0.55;2.02]	0.801
LOS, days	4.00 [3.00;6.00]	5.00 [4.00;6.00]	4.00 [3.00;5.00]	0.95 [0.93;0.97]	< 0.001
Complications	276 (12.0%)	220 (12.9%)	56 (9.49%)	0.71 [0.52;0.96]	0.028
Survival	2298 (99.9%)	1708 (99.8%)	590 (100%)	.[.;.]	1.
Reintervention	35 (1.52%)	25 (1.46%)	10 (1.70%)	1.18 [0.53;2.40]	0.674
Readmision	53 (2.30%)	35 (2.05%)	18 (3.05%)	1.51 [0.83;2.66]	0.171

eTable 5. Postoperative Outcomes in Patients Undergoing Total Knee Arthroplasty

No %	All N=3845	No ERAS	ERAS	OR	P
	Au 1v=3043	N=2843	N=1002	OK .	value
Acute Kidney Injury	41 (1.07%)	33 (1.16%)	8 (0.80%)	0.70 [0.30;1.44]	0.346
Acute Respiratory Distres Syndrome	4 (0.10%)	2 (0.07%)	2 (0.20%)	2.84 [0.30;27.3]	0.337
Pneunomia	8 (0.21%)	7 (0.25%)	1 (0.10%)	0.45 [0.02;2.62]	0.430
Arrythmia	26 (0.68%)	22 (0.77%)	4 (0.40%)	0.53 [0.15;1.40]	0.217
Myocardial infarction	5 (0.13%)	2 (0.07%)	3 (0.30%)	4.16 [0.63;35.9]	0.133
MINS	8 (0.21%)	5 (0.18%)	3 (0.30%)	1.74 [0.33;7.39]	0.477
Pulmonary oedema	6 (0.16%)	6 (0.21%)	0 (0.00%)	.[.;.]	
Deep vein thrombosis	15 (0.39%)	13 (0.46%)	2 (0.20%)	0.46 [0.07;1.70]	0.276
Pulmonary embolism	6 (0.16%)	5 (0.18%)	1 (0.10%)	0.63 [0.02;4.10]	0.672
Stroke	3 (0.08%)	2 (0.07%)	1 (0.10%)	1.51 [0.05;18.7]	0.764
Infection (uncertain source)	11 (0.29%)	9 (0.32%)	2 (0.20%)	0.67 [0.09;2.65]	0.598
Infection (bloodstream)	17 (0.44%)	16 (0.56%)	1 (0.10%)	0.20 [0.01;0.98]	0.047
Surgical site infection (superficial)	68 (1.77%)	48 (1.69%)	20 (2.00%)	1.19 [0.69;1.99]	0.521
Surgical site infection (Deep)	18 (0.47%)	14 (0.49%)	4 (0.40%)	0.83 [0.23;2.36]	0.747
	12 (0.21%	9 (0.20%)	4 (0.25%	1.30 [0.34;4.07]	0.675
Urinary tract infection	31 (0.81%)	23 (0.81%)	8 (0.80%)	1.00 [0.41;2.16]	0.999
Paralytic ileus	30 (0.78%)	27 (0.95%)	3 (0.30%)	0.33 [0.08;0.93]	0.035
Postoperative hemorrhage	127 (3.30%)	104 (3.66%)	23 (2.30%)	0.62 [0.38;0.97]	0.034
Surgical complications	31 (0.81%)	27 (0.95%)	4 (0.40%)	0.43 [0.12;1.11]	0.087
LOS, days	4.00 [3.00;6.00]	5.00 [4.00;6.00]	4.00 [3.00;5.00]	0.95 [0.94;0.97]	<0.001
Complications (overall)	404 (10.5%)	297 (10.4%)	107 (10.7%)	1.03 [0.81;1.29]	0.832
Survival	3845 (100%)	2843 (100%)	1002 (100%)	Ref.	Ref.
Reoperation	33 (0.86%)	20 (0.70%)	13 (1.30%)	1.86 [0.90;3.74]	0.094
Readmission	65 (1.69%)	43 (1.51%)	22 (2.20%)	1.47 [0.86;2.44]	0.159

eTable 6. Graded Postoperative Complications by Self-declared ERAS Centers or Not

			<u>rative Co</u> All				HA				KA	
	No	Mild	Mode	Seve	No	Mild	Mode	Seve	No	Mild	Mode	Seve
			rate	re			rate	re			rate	re
Acute	6065	58	19	4	2261	25	12	3	3804	33	7	1
Kidney	(98.6	(0.94	(0.31	(0.07	(98.2	(1.09	(0.52	(0.13	(98.9	(0.86	(0.18	(0.03
Injury	8%)	%)	%)	%)	6%)	%)	%)	%)	3%)	%)	%)	%)
Acute	6141	3	2	0	2300	1	0 (0%)	0	3841	2	2	0
Respirat	(99.9	(0.05	(0.03	(0%)	(99.9	(0.04	( ( , , , )	(0%)	(99.9	(0.05	(0.05	(0%)
ory	2%)	%)	%)	(070)	6%)	%)		(0,0)	%)	%)	%)	(0,0)
Distress		,0,	,,,,		0,0)	,0,			,0)	,,,,	, , ,	
Syndrom												
e												
Pneumo	6131	6	7	2	2294	2	3	2	3837	4	4	0
nia	(99.7	(0.1	(0.11	(0.03	(99.7	(0.09	(0.13	(0.09	(99.7	(0.1	(0.1%)	(0%)
ıπα	6%)	%)	%)	%)	%)	%)	%)	%)	9%)	%)	(0.170)	(070)
Arrhyth	6103	19	20	4	2284	8	70)	2	3819	11	13	2
mia	(99.3	(0.31	(0.33	(0.07	(99.2	(0.35	(0.3%)	(0.09	(99.3	(0.29	(0.34	(0.05
ша				`		`	(0.5%)			`	`	
<b>M</b> 1	%)	%)	%)	%)	6%)	%)	1	%)	2%)	%)	%)	%)
Myocard	6138	3	3	2	2298	1	1	1	3840	2	2	1
ial	(99.8	(0.05	(0.05	(0.03	(99.8	(0.04	(0.04	(0.04	(99.8	(0.05	(0.05	(0.03
infarctio	7%)	%)	%)	%)	7%)	%)	%)	%)	7%)	%)	%)	%)
n	44.00				2201			_	2020			
Pulmona	6133	5	8	0	2294	3	4	0	3839	2	4	0
ry	(99.7	(0.08	(0.13	(0%)	(99.7	(0.13	(0.17	(0%)	(99.8	(0.05	(0.1%)	(0%)
oedema	9%)	%)	%)		%)	%)	%)		4%)	%)		
Deep	6124	5	16	1	2294	1	6	0	3830	4	10	1
vein	(99.6	(0.08)	(0.26	(0.02	(99.7	(0.04	(0.26	(0%)	(99.6	(0.1	(0.26	(0.03
thrombo	4%)	%)	%)	%)	%)	%)	%)		1%)	%)	%)	%)
sis												
Pulmona	6139	1	6	0	2301	0	0 (0%)	0	3838	1	6	0
ry	(99.8	(0.02	(0.1%)	(0%)	(100	(0%)		(0%)	(99.8	(0.03	(0.16	(0%)
embolis	9%)	%)			%)				2%)	%)	%)	
m												
Stroke	6143	2	1	0	2301	0	0 (0%)	0	3842	2	1	0
	(99.9	(0.03	(0.02	(0%)	(100	(0%)		(0%)	(99.9	(0.05	(0.03	(0%)
	5%)	%)	%)	()	%)	()		()	2%)	%)	%)	(***)
Infection	6120	16	7	3	2286	9	3	3	3834	7	4	0
(uncertai	(99.5	(0.26	(0.11	(0.05	(99.3	(0.39	(0.13	(0.13	(99.7	(0.18	(0.1%)	(0%)
n source)	8%)	%)	%)	%)	5%)	%)	%)	%)	1%)	%)	(0.170)	(0,0)
Infection	6110	12	15	9	2282	7	7	5	3828	5	8	4
(bloodstr	(99.4	(0.2	(0.24	(0.15	(99.1	(0.3	(0.3%)	(0.22	(99.5	(0.13	(0.21	(0.1
eam)	1%)	%)	%)	%)	7%)	%)	(0.570)	%)	6%)	(0.13	%)	%)
Surgical		63	33	3	2270	19	11			44	22	2
site	6047 (98.3		(0.54	(0.05	(98.6	(0.83	(0.48	1 (0.04	3777 (98.2		(0.57	(0.05
		(1.03								(1.14		
infection	9%)	%)	%)	%)	5%)	%)	%)	%)	3%)	%)	%)	%)
(superfic												
ial)	6117	1	20	7	2200	1	7	2	2027	1	10	4
Surgical	6117	2	20	7	2290	1	7	3	3827	1	13	4
site	(99.5	(0.03	(0.33	(0.11	(99.5	(0.04	(0.3%)	(0.13	(99.5	(0.03	(0.34	(0.1
infection	3%)	%)	%)	%)	2%)	%)		%)	3%)	%)	%)	%)
(Deep)				ļ <u>,                                     </u>			0.000					<u> </u>
Periprost	6133	0	9	4	2301	0	0 (0%)	0	3832	0	9	4
hetic	(99.7	(0%)	(0.15	(0.07	(100	(0%)		(0%)	(99.6	(0%)	(0.23	(0.1
infection	9%)		%)	%)	%)	ļ			6%)		%)	%)
Urinary	6097	23	0 (0%)	4	2283	11	0 (0%)	0	3814	12	0 (0%)	4
tract	(99.5	(0.38		(0.07	(99.5	(0.48		(0%)	(99.5	(0.31		(0.1
infection	6%)	%)	<u> </u>	%)	2%)	%)	<u> </u>	<u> </u>	8%)	%)	<u> </u>	%)
Paralytic	6097	25	0 (0%)	1	2282	10	0 (0%)	0	3815	15	0 (0%)	1
ileus	(99.5	(0.41	( /	(0.02	(99.5	(0.44	( , , , , )	(0%)	(99.5	(0.39	\.	(0.03
	8%)	%)		%)	6%)	%)		\-'-'	8%)	%)		%)
Postoper	5915	77	0 (0%)	3	2197	32	0 (0%)	3	3718	45	0 (0%)	0
ative	(98.6	(1.28	0 (0/0)	(0.05	(98.4	(1.43	0 (0/0)	(0.13	(98.8	(1.2	0 (0/0)	(0%)
hemorrh	7%)			(0.05	3%)	(1.43		(0.13	(98.8			(0%)
age	170)	%)		70)	370)	70)		70)	70)	%)		
AVE	i .	1	Ī	Ī	Ī	1	l			Ī	1	i

eTable 7. ERAS Adherence in Patients Undergoing Total Hip Arthroplasty

	All	No ERAS	ERAS	OR	p.ratio
	N= 2301	N=1711	N=590		
% Adherence	50	50.0	68.8 [56.2;75.0]	1.09 [1.08;1.10]	< 0.001
	(43.7;62.5)	[37.5;56.2]			

eTable 8. ERAS Adherence in Patients Undergoing Total Knee Arthroplasty (Median [IQR])

	[ALL]	No ERAS	ERAS	OR	p.ratio
	N=3845	N=2843	N=1002		
% Adherence	56.2 (43.7-62.5)	50.0 [43.8;56.2]	68.8 [62.5;81.2]	1.12 [1.11;1.13]	< 0.001

eTable 9. ERAS Individual Items Adherence

		T	KA			Т	HA	
No. %								
	No	ERAS	OR	P	No	ERAS	OR	P
	ERAS	N=1002		value	ERAS	N=590		value
	N=2843				N=1711			
Presurgical education	280	821	41.4	0.000	153	434	28.2	0.000
_	(9.85%)	(81.9%)	[33.9;50.9]		(8.95%)	(73.6%)	[22.1;36.2]	
Presurgical	343	430	8.32	0.000	204	216	6.22	0.000
optimisation	(20.3%)	(67.9%)	[6.79;10.2]		(19.2%)	(59.7%)	[4.80;8.08]	
Preoperative fasting	1151	733	4.00	0.000	680	433	4.18	0.000
	(40.5%)	(73.2%)	[3.42;4.70]		(39.7%)	(73.4%)	[3.40;5.15]	
Patient blood	797	707	6.19	0.000	476	416	6.26	0.000
management	(28.0%)	(70.7%)	[5.28;7.26]		(27.8%)	(70.7%)	[5.10;7.72]	
Preoperative	42	22	1.50	0.136	36	17	1.39	0.285
carbohydrate drinks	(1.48%)	(2.20%)	[0.88;2.51]		(2.10%)	(2.88%)	[0.75;2.46]	
preload								
Avoidance of long-	1511	528	0.98	0.827	937	335	1.09	0.396
acting sedative	(53.1%)	(52.7%)	[0.85;1.14]		(54.8%)	(56.8%)	[0.90;1.31]	
premedication								
Thromboprophylaxis	2549	964	2.89	< 0.001	1571	571	2.60	< 0.001
	(89.8%)	(96.2%)	[2.07;4.14]		(92.0%)	(96.8%)	[1.63;4.38]	
Antibiotic prophilaxis	2806	993	1.40	0.360	1691	586	1.68	0.324
	(98.7%)	(99.1%)	[0.70;3.12]		(98.8%)	(99.3%)	[0.63;5.94]	
Regional anesthesia	2559	926	1.36	0.019	1016	418	1.66	< 0.001
	(90.0%)	(92.5%)	[1.05;1.79]		(59.4%)	(70.8%)	[1.36;2.04]	
PONV prophylaxis	1709	683	1.42	< 0.001	1030	420	1.63	< 0.001
	(60.1%)	(68.2%)	[1.22;1.65]		(60.2%)	(71.2%)	[1.33;2.00]	
Active prevention of	2348	869	1.39	0.001	1386	479	1.01	0.952
unintentional	(82.7%)	(87.0%)	[1.13;1.72]		(81.3%)	(81.5%)	[0.79;1.29]	
hypothermia								
Goal-directed fluid	146	213	4.98	0.000	123	109	2.92	< 0.001
therapy	(5.14%)	(21.3%)	[3.98;6.25]		(7.19%)	(18.5%)	[2.21;3.86]	
Postoperative	2764	991	2.54	0.001	1646	577	1.74	0.059
analgesia	(97.2%)	(98.9%)	[1.41;5.09]	0.00:	(96.2%)	(97.8%)	[0.98;3.32]	0.004
Postoperative	1474	632	1.59	< 0.001	784	318	1.38	0.001
glycaemic control	(51.8%)	(63.1%)	[1.37;1.85]	0.005	(45.8%)	(53.9%)	[1.15;1.67]	0.000
Early mobilisation	629	759	11.1	0.000	355	423	9.71	0.000
	(22.1%)	(75.9%)	[9.35;13.1]	0.000	(20.8%)	(71.8%)	[7.85;12.1]	0.000
Early feeding	1583	878	5.76	0.000	980	512	4.95	0.000
	(55.7%)	(87.9%)	[4.71;7.09]		(57.3%)	(86.9%)	[3.85;6.45]	

eTable 10. Time to Mobilization and Feeding All patients grouped by Self-proclaimed ERAS and No-ERAS

· · · · pati	l si		ll patie	-prociaii nte	iica Di		I	THA					TKA		
		A	п раце	шѕ				ППА					IKA		
	All	No	ER	OR	p.r	All	No	ER	OR	p.r	All	No	ER	OR	p.r
		ER	AS		ati		ER	AS		ati		ER	AS		ati
		AS			0		AS			0		AS			0
	N=	N=	N=			N=	N=	N=			N=	N=	N=		
	609	453	155			228	170	58			381	283	98		
	7	9	8			3	5	1			5	4	1		
Time	7.63	8.1	6.0	0.89	<0.	7.5	8.1	6.0	0.89	<0.	7.6	8.2	6.0	0.89	<0.
to	(7.7	7	5	[0.87	00	9	2	4	[0.86	00	5	0	5	[0.87	00
feedin	2)	(8.3	(5.1	;0.91	1	(10.	(11.	(5.	;0.92	1	(5.9	(6.0	(5.	;0.91	1
g		6)	1)	]		0)	2)	12)	]		1)	7)	11)	]	
(hours															
)															
Time	26.2	29.	15.	0.91	<0.	27.	30.	17.	0.91	<0.	25.	29.	15.	0.92	<0.
to	(19.	8	9	[0.91	00	4	9	2	[0.90	00	5	1	2	[0.91	00
mobili	0)	(19.	(13.	;0.92	1	(22.	(24.	(13	;0.92	1	(16.	(15.	(13	;0.92	1
sation		3)	7)	]		9)	4)	.3)	]		2)	5)	.9)	]	
(hours							ĺ		-					_	
)															

eTable 11. Graded Postoperative Complications by ERAS Adherence Total No М No Se No M Se No Se No M Se M Se od od ve od od ve il od ve ve ve d era d era era re d era d era re te te te te te 20 10 Acu 60 58 19 18 10 4 0 16 20 0 13 14 (0.(0.45 (0.(0.(0.(0.(0 14 (0.(0 37 (0.(0.Kid (9 94 31 07 87 48 14 56 37 (9 22 12 (9 03 07 8.6 8.5 % %) 9.0 % %) 8.6 % 8.6 %) % %) % % %) % % nev Inju %) %) %) %) 2 0 20 0 10 0 0 16 0 0 0 13 0 Acu 61 3 1 1 0 (0. 41 (0. (0 74 (0.(0. (0 79 (0) 36 (0 52 (0.(0 Res (9 05 03 (9 05 05 (9 15 07 9.9 9.7 pirat 9.9 %) 00 00 %) %) ory %) %) %) Dist %) %) ress Syn dro me 20 10 16 0 13 1 61 0 0 Pne (0. (0. (0. (0. (0. (0. (0 (0 (0. (0. 67 (0 77 34 (0 (0. 53 (0. umo 31 (0)03 29 14 09 12 07 07 nia 9.7 9.5 %) 9.8 9.8 9.8 % %) % % %) % %) %) % 6 5 %) %) %) %) % 19 20 20 10 16 13 Arr 61 (0. (0. (0. (0 (0. (0. (0. (0. (0. (0. (0. (0. (0. hyth 03 (0.(0.63 68 27 45 31 33 07 29 29 05 46 46 09 (9 37 18 15 44 15 9.3 %) 9.3 %) 8.9 %) 9.4 %) 9.2 % %) %) %) %) %) My 20 10 0 0 16 0 13 (0. 72 (0. (0 38 (0. (0. (0. (0. 79 (0 (0 35 (0 (0. 52 (0. (0. (0. (0) ocar dial 05 05 03 (9 05 05 (1 %) (9 06 (9 07 07 07 9.8 9.8 % %) 00 9.9 %) 9.7 %) % infa %) rctic %) %) %) %) Pul 0 20 10 2 0 16 0 13 0 (0. 53 33 (0. (0. (0 71 (0. (0 75 34 (0.(0.(0 mon 19 ary (9 08 13 (9 05 19 19 (9 12 %) (9 15 % 9.7 9.6 9.8 9.8 oed 9.7 %) % %) % %) % %) ) ema %) %) %) %) %) 0 Dee 61 5 16 1 20 4 0 10 1 16 0 1 13 6 0 48 69 (0. 33 (0 vein (9 26 02 (9 14 19 (9 09 06 (9 07 44 08 37 12 % 9.6 9.5 %) 9.8 thro 9.6 % %) % % %) % %) % 9.4 % %) ) mbo 2 %) %) %) %) %) sis 0 20 0 10 0 0 0 13 Pul 61 16 39 (0.74 (0.76 35 (0 54 (0 mon 1% (9 02 1% % (9 28 (9 06 (9 07 %) % % arv 9.8 9.9 9.7 9.9 9.9 emb %) %) % olis %) 3 %) %) %) %) m 20 10 0 0 Stro 61 2 1 0 0 0 0 16 1 13 0 0 43 (0.(0. (0 75 (0.(0 79 (0) 35 (0.54 (0.(0 (9 05 %) 02 (1 %) 06 %) 9.9 9.9 9.9 00 9.9 %) %) % % %) ) 3 %) %) %) %) Infe 61 16 20 10 10 16 13 (0.(0.(0.(0 ctio 20 (0.59 (0. 77 (0.(0.(0) 32 (0.(0)52 (0) (0. (9 26 11 05 (9 48 24 09 09 (9 18 06 (9 15 %) 07 9.5 9.1 9.8 9.7 9.7 (unc %) %) %) %) 6 8 8 1 ertai %) %) %) %) %) sour

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(blo odst rea	9.4 1 %)	%	%)	%	9.3 3 %)	%	%)	%	9.4 4 %)	%	%)	%	9.2 7 %)	%	%)	%	9.7 %)	%	%)	%
m) Sur gica l site infe ctio n (sup erfic ial)	60 47 (9 8.3 9 %)	63 (1. 03 % )	33 (0. 54 %)	3 (0. 05 % )	20 40 (9 8.2 7 %)	19 (0. 92 % )	16 (0. 77 %)	1 (0. 05 % )	10 61 (9 8.3 3 %)	12 (1. 11 % )	5 (0. 46 %)	1 (0. 09 % )	16 09 (9 8.3 5 %)	20 (1. 22 % )	6 (0. 37 %)	1 (0. 06 % )	13 37 (9 8.6 7 %)	12 (0. 89 % )	6 (0. 44 %)	0 (0 %)
Sur gica 1 site infe ctio n (De ep)	61 17 (9 9.5 3 %)	2 (0. 03 % )	20 (0. 33 %)	7 (0. 11 % )	20 64 (9 9.4 2 %)	0 (0 %	9 (0. 43 %)	3 (0. 14 % )	10 78 (9 9.9 1 %)	0 (0 %)	1 (0. 09 %)	0 (0 %	16 25 (9 9.3 3 %)	1 (0. 06 % )	7 (0. 43 %)	3 (0. 18 % )	13 50 (9 9.6 3 %)	1 (0. 07 % )	3 (0. 22 %)	1 (0. 07 % )
Peri pros theti c infe ctio n	61 33 (9 9.7 9 %)	0 (0 %	9 (0. 15 %)	4 (0. 07 % )	20 73 (9 9.8 6 %)	0 (0 %)	3 (0. 14 %)	0 (0 %)	10 79 (1 00 %)	0 (0 %)	0 (0 %)	0 (0 %)	16 28 (9 9.5 1 %)	0 (0 %)	5 (0. 31 %)	3 (0. 18 % )	13 53 (9 9.8 5 %)	0 (0 %)	1 (0. 07 %)	1 (0. 07 % )
Urin ary tract infe ctio n	60 97 (9 9.5 6 %)	23 (0. 38 % )	0 (0 %)	4 (0. 07 % )	20 57 (9 9.6 1 %)	6 (0. 29 % )	0 (0 %)	2 (0. 1 % )	10 71 (9 9.4 4 %)	5 (0. 46 % )	0 (0 %)	1 (0. 09 % )	16 25 (9 9.5 7 %)	6 (0. 37 % )	0 (0 %)	1 (0. 06 % )	13 44 (9 9.5 6 %)	6 (0. 44 % )	0 (0 %)	0 (0 %)
Para lytic ileu s	60 97 (9 9.5 8 %)	25 (0. 41 % )	0 (0 %)	1 (0. 02 % )	20 52 (9 9.2 3 %)	15 (0. 73 % )	0 (0 %)	1 (0. 05 % )	10 70 (9 9.7 2 %)	3 (0. 28 % )	0 (0 %)	0 (0 %)	16 28 (9 9.8 8 %)	2 (0. 12 % )	0 (0 %)	0 (0 %	13 47 (9 9.6 3 %)	5 (0. 37 % )	0 (0 %)	0 (0 %
Post oper ativ e hem orrh age	59 15 (9 8.6 7 %)	77 (1. 28 % )	0 (0 %)	3 (0. 05 % )	19 70 (9 7.8 6 %)	40 (1. 99 % )	0 (0 %)	3 (0. 15 % )	10 30 (9 9.1 3 %)	9 (0. 87 % )	0 (0 %)	0 (0 %	15 91 (9 9.0 7 %)	15 (0. 93 % )	0 (0 %)	0 (0 %	13 24 (9 9.0 3 %)	13 (0. 97 % )	0 (0 %)	0 (0 %)
Reo pera tion	60 77 (9 8.8 8 %)	0 (0 %)	65 (1. 06 %)	4 (0. 07 % )	20 50 (9 8.7 5 %)	0 (0 % )	25 (1. 2% )	1 (0. 05 % )	10 73 (9 9.4 4 %)	0 (0 %	5 (0. 46 %)	1 (0. 09 % )	16 14 (9 8.6 6 %)	0 (0 %)	20 (1. 22 %)	2 (0. 12 % )	13 40 (9 8.8 9 %)	0 (0 % )	15 (1. 11 %)	0 (0 %)

eTable 12. ERAS Adherence in ASA I-II and ASA III-IV Groups

·	All patients	ASA I-II	ASA III-IV	p.overall
	N=6145	N=4527	N=1618	
Presurgical education	1688 (27.5%)	1303 (28.8%)	385 (23.8%)	< 0.001
Presurgical optimisation	1193 (31.8%)	854 (31.6%)	339 (32.3%)	0.709
Preoperative fasting	2996 (48.8%)	2204 (48.7%)	792 (48.9%)	0.878
Patient blood management	2396 (39.0%)	1793 (39.7%)	603 (37.3%)	0.101
Preoperative carbohydrate drinks preload	117 (1.90%)	94 (2.08%)	23 (1.42%)	0.121
Avoidance of long-acting sedative premedication	3310 (53.9%)	2477 (54.7%)	833 (51.5%)	0.027
Thromboprophylaxis	5654 (92.1%)	4167 (92.1%)	1487 (92.0%)	0.851
Antibiotic prophylaxis	6075 (98.9%)	4474 (98.9%)	1601 (98.9%)	0.854
Regional anesthesia	4919 (80.1%)	3618 (80.0%)	1301 (80.4%)	0.723
PONV prophylaxis	3841 (62.5%)	2884 (63.7%)	957 (59.1%)	0.001
Active prevention of unintentional hypothermia	5081 (82.9%)	3796 (84.1%)	1285 (79.6%)	< 0.001
Goal directed fluid therapy	591 (9.62%)	451 (9.96%)	140 (8.65%)	0.138
Postoperative analgesia	5977 (97.3%)	4418 (97.6%)	1559 (96.4%)	0.011
Postoperative glycemic control	3207 (52.2%)	2301 (50.8%)	906 (56.0%)	< 0.001
Early mobilisation	2165 (35.3%)	1668 (36.9%)	497 (30.8%)	< 0.001
Early feeding	3952 (64.4%)	2965 (65.6%)	987 (61.0%)	0.001
ERAS Adherence				0.003
ERASQ1	2076 (33.8%)	1497 (33.1%)	579 (35.8%)	
ERASQ2	1079 (17.6%)	773 (17.1%)	306 (18.9%)	
ERASQ3	1635 (26.6%)	1210 (26.7%)	425 (26.3%)	
ERASQ4	1355 (22.1%)	1047 (23.1%)	308 (19.0%)	

eTable 13. Univariate and Multivariate Analysis for Length of Stay

LOS		Mean	Coefficient	Coefficient
LOS		(sd)	(univariable)	(multivariable)
Age	[18,95]	5.9 (5.7)	0.03 (0.01 to 0.04,	0.01 (-0.01 to 0.03,
	[,,]	(017)	p<0.001)	p=0.400)
BMI	[40,150]	5.9 (5.7)	-0.01 (-0.02 to 0.00,	-0.00 (-0.02 to 0.01,
			p=0.117)	p=0.610)
Frailty	[1,8]	5.9 (5.7)	0.32 (0.17 to 0.46,	0.18 (-0.03 to 0.38,
			p<0.001)	p=0.092)
Diabetes Mellitus		7.1 (6.2)	1.21 (0.40 to 2.02,	-0.01 (-1.10 to 1.08,
Heart failure		7.4(6.0)	p=0.004)	p=0.987)
Heart failure		7.4 (6.8)	1.51 (0.61 to 2.41,	0.67 (-0.55 to 1.89, p=0.283)
Atrial Fibrilation		6.6 (5.6)	p=0.001) 0.75 (0.18 to 1.32,	-0.12 (-0.88 to 0.64,
Attial Fibrilation		0.0 (3.0)	p=0.010)	p=0.758)
Chronic kidney disease		7.4 (7.1)	1.51 (0.88 to 2.15,	1.04 (0.15 to 1.94,
chi shie haney alsease		/ (/ /	p<0.001)	p=0.022)
Hemoglobin	[8,18.9]	5.9 (5.7)	-0.18 (-0.28 to -0.07,	-0.09 (-0.23 to 0.05,
C			p=0.001)	p=0.211)
Blood losses	[0,2640]	6.0 (5.8)	0.00 (-0.00 to 0.00,	-
			p=0.152)	
Tranexamic acid		5.8 (5.7)	-0.46 (-0.79 to -0.14,	-0.03 (-0.46 to 0.41,
			p=0.006)	p=0.907)
Presurgical education		5.3 (5.6)	-0.87 (-1.20 to -0.55,	0.31 (-0.26 to 0.87,
		- 4 (- 4)	p<0.001)	p=0.287)
Presurgical optimisation		5.4 (5.4)	-0.67 (-1.07 to -0.27,	-0.45 (-0.96 to 0.07,
D ( C (		5.0 (5.0)	p=0.001)	p=0.087)
Preoperative fasting		5.9 (5.8)	-0.15 (-0.43 to 0.14,	-
Patient blood management		5.7 (5.4)	p=0.323) -0.45 (-0.74 to -0.15,	-0.12 (-0.55 to 0.32,
Fatient blood management		3.7 (3.4)	p=0.003)	p=0.594)
Preoperative carbohydrate drink load		6.2 (6.3)	0.25 (-0.80 to 1.30,	p=0.374)
Treoperative carbonyarate arms road		0.2 (0.3)	p=0.643)	
Avoidance of long-acting sedatives		5.9 (5.6)	-0.16 (-0.45 to 0.13,	-
		(-1.1)	p=0.277)	
Thromboprophylaxis		5.9 (5.7)	-0.34 (-0.87 to 0.20,	-
7 7 7			p=0.216)	
Antibiotic prophylaxis		5.9 (5.7)	-0.80 (-2.18 to 0.57,	-
			p=0.253)	
Regional anesthesia (ERAS ítem)		5.9 (5.7)	-0.38 (-0.74 to -0.02,	-0.46 (-0.94 to 0.03,
DOME 1 1 1		5 O (5 C)	p=0.041)	p=0.066)
PONV prophylaxis		5.8 (5.6)	-0.25 (-0.55 to 0.04,	-
A .:		(1 (5 0)	p=0.095)	0.79 (0.20 ) 1.26
Active prevention of unintentional hypothermia		6.1 (5.8)	0.71 (0.33 to 1.09, p<0.001)	0.78 (0.30 to 1.26, p=0.001)
Goal directed fluid therapy		5.9 (6.3)	-0.07 (-0.55 to 0.42,	p=0.001)
Goar directed fluid therapy		3.7 (0.3)	p=0.792)	_
Postoperative analgesia		5.9 (5.7)	-0.34 (-1.22 to 0.54,	_
1 ostoperative analgesia		3.5 (3.7)	p=0.446)	
Postoperative glycaemic control		6.0 (5.7)	0.10 (-0.19 to 0.39,	_
1 23		, ,	p=0.497)	
Early mobilisation		5.2 (5.7)	-1.10 (-1.40 to -0.79,	-0.51 (-0.95 to -0.06,
			p<0.001)	p=0.025)
Early feeding		5.7 (5.7)	-0.56 (-0.87 to -0.26,	-0.34 (-0.77 to 0.09,
			p<0.001)	p=0.117)
Epidural anesthesia		7.1 (6.0)	1.28 (0.69 to 1.87,	1.53 (0.79 to 2.26,
D : 1 1 1 1		55.50	p<0.001)	p<0.001)
Peripheral nerve blocks		5.7 (5.3)	-0.27 (-0.67 to 0.13,	-
Local amostha-:-		4.5 (4.0)	p=0.188)	150 ( 2 (1 ) 0 57
Local anesthesia		4.5 (4.9)	-1.46 (-2.18 to -0.74,	-1.59 (-2.61 to -0.57,
Postoporativa complications		Q 2 (7 1)	p<0.001)	p=0.002)
Postoperative complications		8.3 (7.1)	2.64 (2.19 to 3.09, p<0.001)	2.63 (2.00 to 3.25, p<0.001)
	ı	1	ρ<0.001)	p<0.001)

**eFigure 1. Postoperative Outcomes** 

	Total (N=6146)	No ERAS (n=4554)	ERAS (n=1592)		
	Events, No.(%)	Events, No.(%)	Events, No.(%)	Odds Ratio (95% CI	P Value
			Favour Self- Favo Proclamed No Self-Pro		
			ERAS ERA	s	
Complications	680 (11,06%)	517 (11,35%)	163 (10,24%)	0,89 [0,74;1,07]	0,222
Moderate to severe complications	352 (5,73%)	279 (6,13%)	73 (4,59%)	0,74 [0,56;0,96]	0,021
Survival	6143 (99,95%)	4551 (99,93%)	1592 (100,00%)	. [.;.]	
Readmision	118 (1,92%)	78 (1,71%)	40 (2,51%)	1,48 [1,00;2,17]	0,051
Acute Kidney Injury	81 (1,32%)	67 (1,47%)	14 (0,88%)	0,60 [0,32;1,04]	0,069
Acute Respiratory Distress Syndrome	5 (0,08%)	3 (0,07%)	2 (0,13%)	1,95 [0,23;12,8]	0,499
Pneumonia	15 (0,24%)	13 (0,29%)	2 (0,13%)	0,47 [0,07;1,72]	0,282
Arrhythmia	43 (0,70%)	34 (0,75%)	9 (0,57%)	0,77 [0,34;1,54]	0,470
Myocardial infarction	8 (0,13%)	5 (0,11%)	3 (0,19%)	1,75 [0,34;7,44]	0,471
Myocardial injury after non-cardiac surgery	10 (0,16%)	7 (0,15%)	3 (0,19%)	1,26 [0,26;4,67]	0,747
Cardiac arrest	4 (0,07%)	3 (0,07%)	1 (0,06%)	1,04 [0,04;8,95]	0,976
Pulmonary oedema	13 (0,21%)	12 (0,26%)	1 (0,06%)	0,27 [0,01;1,38]	0,132
Deep veinn thrombosis	22 (0,36%)	19 (0,42%)	3 (0,19%)	0,47 [0,11;1,39]	0,190
Pulmonary embolism	6 (0,10%)	5 (0,11%)	1 (0,06%)	0,64 [0,02;4,13]	0,678
Stroke	3 (0,05%)	2 (0,04%)	1 (0,06%)	1,52 [0,05;18,8]	0,760
Infection (uncertain source)	26 (0,42%)	23 (0,51%)	3 (0,19%)	0,39 [0,09;1,13]	0,086
Infection (bloodstream)	36 (0,59%)	30 (0,66%)	6 (0,38%)	0,58 [0,22;1,31]	0,205
Surgical site infection (superficial)	99 (1,61%)	73 (1,60%)	26 (1,63%)	1,02 [0,64;1,59]	0,921
Surgical site infection (Deep)	29 (0,47%)	22 (0,48%)	7 (0,44%)	0,92 [0,36;2,08]	0,856
Periprosthetic infection	13 (0,21%)	9 (0,20%)	4 (0,25%)	1,30 [0,34;4,07]	0,675
Urinary tract infection	49 (0,80%)	36 (0,79%)	13 (0,82%)	1,04 [0,53;1,92]	0,901
Paralytic ileus	49 (0,80%)	42 (0,92%)	7 (0,44%)	0,48 [0,20;1,01]	0,055
Postoperative hemorrhage	231 (3,76%)	196 (4,30%)	35 (2,20%)	0,50 [0,34;0,71]	<0,001
Surgical complicactions	79 (1,29%)	62 (1,36%)	17 (1,07%)	0,79 [0,44;1,32]	0,377
LOS	4,00 [3,00;6,00]	5,00 [4,00;6,00]	4,00 [3,00;5,00]	0,95 [0,94;0,97]	<0,001
			0,711,01,41 4,	0	

eFigure 2. Postoperative Outcomes and Enhanced Recovery After Surgery (ERAS) Adherence in Patients Undergoing THA

	Total (N=6146)	No ERAS (n=4554)	ERAS (n=1592)		
	Events, No.(%)	Events, No.(%)	Events, No.(%)	Odds Ratio (95% C	I) P Value
			Favour Self- Proclamed No	Favour Self-Proclamed	
			ERAS	ERAS	
Complications	680 (11,06%)	517 (11,35%)	163 (10,24%)	0,89 [0,74;1,07]	0,222
Moderate to severe complications	352 (5,73%)	279 (6,13%)	73 (4,59%)	0,74 [0,56;0,96]	0,021
Survival	6143 (99,95%)	4551 (99,93%)	1592 (100,00%)	. [.;.]	
Readmision	118 (1,92%)	78 (1,71%)	40 (2,51%)	1,48 [1,00;2,17]	0,051
Acute Kidney Injury	81 (1,32%)	67 (1,47%)	14 (0,88%)	0,60 [0,32;1,04]	0,069
Acute Respiratory Distress Syndrome	5 (0,08%)	3 (0,07%)	2 (0,13%)	1,95 [0,23;12,8]	0,499
Pneumonia	15 (0,24%)	13 (0,29%)	2 (0,13%)	0,47 [0,07;1,72]	0,282
Arrhythmia	43 (0,70%)	34 (0,75%)	9 (0,57%)	0,77 [0,34;1,54]	0,470
Myocardial infarction	8 (0,13%)	5 (0,11%)	3 (0,19%)	1,75 [0,34;7,44]	0,471
Myocardial injury after non-cardiac surgery	10 (0,16%)	7 (0,15%)	3 (0,19%)	1,26 [0,26;4,67]	0,747
Cardiac arrest	4 (0,07%)	3 (0,07%)	1 (0,06%)	7,04 [0,04;8,95]	0,976
Pulmonary oedema	13 (0,21%)	12 (0,26%)	1 (0,06%)	0,27 [0,01;1,38]	0,132
Deep veinn thrombosis	22 (0,36%)	19 (0,42%)	3 (0,19%)	0,47 [0,11;1,39]	0,190
Pulmonary embolism	6 (0,10%)	5 (0,11%)	1 (0,06%)	0,64 [0,02;4,13]	0,678
Stroke	3 (0,05%)	2 (0,04%)	1 (0,06%)	1,52 [0,05;18,8]	0,760
Infection (uncertain source)	26 (0,42%)	23 (0,51%)	3 (0,19%)	0,39 [0,09;1,13]	0,086
Infection (bloodstream)	36 (0,59%)	30 (0,66%)	6 (0,38%)	0,58 [0,22;1,31]	0,205
Surgical site infection (superficial)	99 (1,61%)	73 (1,60%)	26 (1,63%)	1,02 [0,64;1,59]	0,921
Surgical site infection (Deep)	29 (0,47%)	22 (0,48%)	7 (0,44%)	0,92 [0,36;2,08]	0,856
Periprosthetic infection	13 (0,21%)	9 (0,20%)	4 (0,25%)	> 1,30 [0,34;4,07]	0,675
Urinary tract infection	49 (0,80%)	36 (0,79%)	13 (0,82%)	1,04 [0,53;1,92]	0,901
Paralytic ileus	49 (0,80%)	42 (0,92%)	7 (0,44%)	0,48 [0,20;1,01]	0,055
Postoperative hemorrhage	231 (3,76%)	196 (4,30%)	35 (2,20%)	0,50 [0,34;0,71]	<0,001
Surgical complicactions	79 (1,29%)	62 (1,36%)	17 (1,07%)	0,79 [0,44;1,32]	0,377
LOS	4,00 [3,00;6,00]	5,00 [4,00;6,00]	4,00 [3,00;5,00]	0,95 [0,94;0,97]	<0,001
	programmy = configuration of the configuration of t		0,711,01,4	11 4,0	

eFigure 3. Postoperative Outcomes and Enhanced Recovery After Surgery (ERAS) Adherence in Patients Undergoing TKA

	Adherence <=43.80% Q1 (n=1161)	Adherence >43.80% but <=56.25% Q2 (n=1311)	Adherence >56.25% but <=62.50% Q3 (n=499)	Adherence >62.50% Q4 (n=874)	Favours Favou Q4 Q1	Odds Ratio (95% CI)	P Value
Complications	132 (11.37%)	127 (9.69%)	48 (9.62%)	97 (11.10%)	+	0.97 [0.74;1.28]	0.850
Moderate to severe complications	69 (5.94%)	71 (5.42%)	23 (4.61%)	37 (4.23%)	•	0.70 [0.46;1.05]	0.085
Survival	1161 (100.00%)	1311 (100.00%)	499 (100.00%)	874 (100.00%)		Ref.	Ref.
Readmision	13 (1.12%)	26 (1.98%)	14 (2.81%)	12 (1.37%)	+	1.23 [0.55;2.75]	0.611
Acute Kidney Injury	12 (1.03%)	11 (0.84%)	7 (1.40%)	11 (1.26%)		1.22 [0.52;2.83]	0.638
Acute Respiratory Distress Syndrome	1 (0.09%)	0 (0.00%)	0 (0.00%)	3 (0.34%)		3.67 [0.42;105.26]	0.248
Pneumonia	5 (0.43%)	0 (0.00%)	2 (0.40%)	1 (0.11%)		0.29 [0.01;1.92]	0.224
Arrhythmia	5 (0.43%)	11 (0.84%)	2 (0.40%)	8 (0.92%)		2.11 [0.69;7.20]	0.192
Myocardial infarction	2 (0.17%)	0 (0.00%)	0 (0.00%)	3 (0.34%)	-	1.95 [0.30;16.80]	0.481
Myocardial injury after non-cardiac surgery	3 (0.26%)	2 (0.15%)	0 (0.00%)	3 (0.34%)	-	1.33 [0.23;7.75]	0.739
Cardiac arrest: No	1161 (100.00%)	1311 (100.00%)	499 (100.00%)	874 (100.00%)		Ref.	Ref.
Pulmonary oedema	2 (0.17%)	2 (0.15%)	0 (0.00%)	2 (0.23%)	-	1.33 [0.14;12.79]	0.790
Deep veinn thrombosis	5 (0.43%)	4 (0.31%)	2 (0.40%)	4 (0.46%)	-	1.07 [0.25;4.21]	0.921
Pulmonary embolism	2 (0.17%)	2 (0.15%)	1 (0.20%)	1 (0.11%)	_	0.71 [0.02;8.74]	0.791
Stroke	1 (0.09%)	0 (0.00%)	1 (0.20%)	1 (0.11%)		1.33 [0.03;51.86]	0.859
Infection (uncertain source)	4 (0.34%)	2 (0.15%)	3 (0.60%)	2 (0.23%)		0.69 [0.08;3.75]	0.673
Infection (bloodstream)	5 (0.43%)	6 (0.46%)	4 (0.80%)	2 (0.23%)	-	0.55 [0.07;2.70]	0.480
Surgical site infection (superficial)	22 (1.89%)	19 (1.45%)	12 (2.40%)	15 (1.72%)	+	0.91 [0.46;1.75]	0.774
Surgical site infection (Deep)	7 (0.60%)	5 (0.38%)	3 (0.60%)	3 (0.34%)		0.58 [0.12;2.17]	0.435
Periprosthetic infection	3 (0.26%)	5 (0.38%)	3 (0.60%)	2 (0.23%)		0.91 [0.11;5.97]	0.918
Urinary tract infection	10 (0.86%)	12 (0.92%)	4 (0.80%)	5 (0.57%)	-	0.67 [0.20;1.93]	0.470
Paralytic ileus	16 (1.38%)	10 (0.76%)	1 (0.20%)	3 (0.34%)		0.26 [0.06;0.78]	0.015
Postoperative hemorrhage	48 (4.13%)	46 (3.51%)	13 (2.61%)	20 (2.29%)	•	0.55 [0.31;0.91]	0.021
Surgical complicactions	13 (1.12%)	9 (0.69%)	4 (0.80%)	5 (0.57%)	-	0.52 [0.16;1.40]	0.200
LOS	5.00 [4.00;6.00]	5.00 [3.00;6.00]	4.00 [3.00;6.00]	4.00 [3.00;5.00]	0.016 0.500 8.00	0.97 [0.95;0.98]	<0.001

eFigure 4. Time to Mobilization and Feeding in All Patients Grouped by ERAS Adherence

	Adherence <=43.75% Q1 (n=2076)	Adherence >43.75% but <=50.00% Q2 (n=1079)	Adherence >50.00% but <=62.50% Q3 (n=1636)	Adherence >62.50% Q4 (n=1355) Favours	Odds Ratio Favours (95% CI)	P Value
Time to feeding (hours)	7.00 [6.00;10.00]	6.00 [6.00;8.00]	6.00 [5.00;7.00]	6.00 [4.00;6.00]	0.84 [0.82;0.86]	] <0.001
Time to mobilisation (hours)	24.00 [24.00;44.00]	24.00 [20.00;36.00]	24.00 [13.00;25.00]	16.00 [6.00;24.00]	0.94 [0.93;0.95]	] <0.001
				0.71	2.0	

eFigure 5. Time to Mobilization and Feeding in THA Patients Grouped by ERAS Adherence

	Adherence <=43.80% Q1 (n=915)	Adherence >43.80% but <=50.00% Q2 (n=352)	Adherence >50.00% but <=62.50% Q3 (n=553)	Q4 (n=481) Favours Fav	Odds Ratio (95% CI)	P Value
Time to feeding (hours)	6.00 [6.00;9.00]	6.00 [5.50;8.00]	6.00 [5.00;6.00]	6.00 [4.00;6.00]	0.88 [0.85;0.91]	<0.001
Time to mobilisation (hours)	24.00 [24.00;39.00]	24.00 [22.00;36.00]	24.00 [17.00;26.00]	20.00 [9.00;24.00]	0.95 [0.94;0.96]	<0.001
				0.71	2.0	

eFigure 6. Time to Mobilization and Feeding in TKA Patients Grouped by ERAS Adherence

	Adherence <=43.80% Q1 (n=1161)	Adherence >43.80% but <=56.25% Q2 (n=1311)	Adherence >56.25% but <=62.50% Q3 (n=499)	Q4 (n=874) Favours Fav	Odds Ratio (95% CI)	P Value
Time to feeding (hours)	7.00 [6.00;10.00]	6.00 [5.00;8.00]	6.00 [4.00;6.00]	6.00 [4.00;6.00]	0.81 [0.79;0.84]	<0.001
Time to mobilisation (hours)	24.00 [24.00;48.00]	24.00 [16.00;31.00]	24.00 [10.00;24.00]	12.50 [6.00;24.00]	0.93 [0.93;0.94]	<0.001
				0.71	2.0	

eFigure 7. Postoperative Outcomes and Enhanced Recovery After Surgery in all ASA I-II Patients Grouped by Self-declared ERAS Center or Not

	Total (N=4527)	No ERAS (n=3281)	) ERAS (n=1246)				
	Events, No.(%)	Events, No.(%)	, , , ,				
			Favour Self- Favou Proclamed No Self-Proc				
			ERAS ERA				
Complications	402 (8,88%)	297 (9,05%)	105 (8,43%)	0,93 [0,73;1,16]	0,512		
Moderate to severe complications	194 (4,29%)	152 (4,63%)	42 (3,37%)	0,72 [0,50;1,01]	0,058		
Survival	4527 (100,00%)	3281 (100,00%)	1246 (100,00%)	Ref.	Ref.		
Readmision	64 (1,41%)	42 (1,28%)	22 (1,77%)	1,39 [0,81;2,32]	0,224		
Acute Kidney Injury	28 (0,62%)	20 (0,61%)	8 (0,64%)	1,07 [0,44;2,36]	0,880		
Acute Respiratory Distress Syndrome	3 (0,07%)	3 (0,09%)	0 (0,00%)	. [.;.]			
Pneumonia	5 (0,11%)	5 (0,15%)	0 (0,00%)	. [.;.]			
Arrhythmia	21 (0,46%)	15 (0,46%)	6 (0,48%)	1,07 [0,37;2,66]	0,890		
Myocardial infarction	4 (0,09%)	2 (0,06%)	2 (0,16%)	2,64 [0,27;25,3]	0,371		
Myocardial injury after non-cardiac surgery	2 (0,04%)	2 (0,06%)	0 (0,00%)	. [.;.]	(2)		
Cardiac arrest	1 (0,02%)	0 (0,00%)	1 (0,08%)	. [.;.]	540		
Pulmonary oedema	4 (0,09%)	4 (0,12%)	0 (0,00%)	. [.;.]			
Deep veinn thrombosis	13 (0,29%)	12 (0,37%)	1 (0,08%)	0,25 [0,01;1,27]	0,105		
Pulmonary embolism	3 (0,07%)	3 (0,09%)	0 (0,00%)	. [.;.]			
Stroke: No	4527 (100,00%)	3281 (100,00%)	1246 (100,00%)	Ref.	Ref.		
Infection (uncertain source)	17 (0,38%)	16 (0,49%)	1 (0,08%)	0,19 [0,01;0,91]	0,035		
Infection (bloodstream)	20 (0,44%)	16 (0,49%)	4 (0,32%)	0,68 [0,19;1,87]	0,475		
Surgical site infection (superficial)	64 (1,41%)	45 (1,37%)	19 (1,52%)	1,12 [0,64;1,89]	0,687		
Surgical site infection (Deep)	15 (0,33%)	11 (0,34%)	4 (0,32%)	0,98 [0,26;2,92]	0,975		
Periprosthetic infection	6 (0,13%)	4 (0,12%)	2 (0,16%)	1,37 [0,17;7,43]	0,736		
Urinary tract infection	30 (0,66%)	23 (0,70%)	7 (0,56%)	0,81 [0,32;1,82]	0,630		
Paralytic ileus	31 (0,68%)	26 (0,79%)	5 (0,40%)	0,52 [0,17;1,25]	0,152		
Postoperative hemorrhage	122 (2,69%)	104 (3,17%)	18 (1,44%)	0,45 [0,26;0,73]	0,001		
Surgical complicactions	47 (1,04%)	39 (1,19%)	8 (0,64%)	0,55 [0,23;1,11]	0,100		
LOS	4,00 [3,00;6,00]	5,00 [3,00;6,00]	4,00 [3,00;5,00]	0,95 [0,94;0,97]	<0,001		
			0,711,01,41 4,0				

eFigure 8. Postoperative Outcomes and Enhanced Recovery After Surgery in All ASA 3-4 Patients Grouped by Self-declared ERAS Center or Not

	Total (N=1618)	No ERAS (n=1273)	ERAS (n=345)		
	Events, No.(%)	Events, No.(%)	Events, No.(%)	Odds Ratio (9	5% CI) P Value
			Favour Self- Proclamed N	Favour No Self-Proclamed	
			ERAS	ERAS	
Complications	278 (17,18%)	220 (17,28%)	58 (16,81%)	0,97 [0,70;	1,32] 0,845
Moderate to severe complications	158 (9,77%)	127 (9,98%)	31 (8,99%)	0,89 [0,58;	,33] 0,592
Survival	1615 (99,81%)	1270 (99,76%)	345 (100,00%)	. [.;.]	•
Readmision	54 (3,34%)	36 (2,83%)	18 (5,22%)	1,90 [1,04;3	3,35] 0,038
Acute Kidney Injury	53 (3,28%)	47 (3,69%)	6 (1,74%)	0,47 [0,18;	0,062
Acute Respiratory Distress Syndrome	2 (0,12%)	0 (0,00%)	2 (0,58%)	. [.;.]	
Pneumonia	10 (0,62%)	8 (0,63%)	2 (0,58%)	> 0,97 [0,13;4	1,01] 0,974
Arrhythmia	22 (1,36%)	19 (1,49%)	3 (0,87%)	0,60 [0,14;	0,398
Myocardial infarction	4 (0,25%)	3 (0,24%)	1 (0,29%)	• 34 [0,05; <sup>4</sup>	11,6] 0,818
Myocardial injury after non-cardiac surgery	8 (0,49%)	5 (0,39%)	3 (0,87%)	> 2,27 [0,44;9	9,67] 0,301
Cardiac arrest	3 (0,19%)	3 (0,24%)	0 (0,00%)	. [.;.]	
Pulmonary oedema	9 (0,56%)	8 (0,63%)	1 (0,29%)	0,52 [0,02;2	2,89] 0,511
Deep veinn thrombosis	9 (0,56%)	7 (0,55%)	2 (0,58%)	1,11 [0,15;4	1,76] 0,900
Pulmonary embolism	3 (0,19%)	2 (0,16%)	1 (0,29%)	1,96 [0,06;2	24,3] 0,630
Stroke	3 (0,19%)	2 (0,16%)	1 (0,29%)	1,96 [0,06;2	24,3] 0,630
Infection (uncertain source)	9 (0,56%)	7 (0,55%)	2 (0,58%)	> 1,11 [0,15;4	1,76] 0,900
Infection (bloodstream)	16 (0,99%)	14 (1,10%)	2 (0,58%)	0,56 [0,08;2	2,04] 0,418
Surgical site infection (superficial)	35 (2,16%)	28 (2,20%)	7 (2,03%)	0,94 [0,37;2	2,06] 0,878
Surgical site infection (Deep)	14 (0,87%)	11 (0,86%)	3 (0,87%)	1,04 [0,22;3	3,42] 0,949
Periprosthetic infection	7 (0,43%)	5 (0,39%)	2 (0,58%)	1,54 [0,20;7	7,53] 0,631
Urinary tract infection	19 (1,17%)	13 (1,02%)	6 (1,74%)	1,74 [0,60;4	1,49] 0,291
Paralytic ileus	18 (1,11%)	16 (1,26%)	2 (0,58%)	0,49 [0,07;	0,304
Postoperative hemorrhage	109 (6,74%)	92 (7,23%)	17 (4,93%)	0,67 [0,38;	1,11] 0,126
Surgical complicactions	32 (1,98%)	23 (1,81%)	9 (2,61%)	1,47 [0,63;3	3,12] 0,350
LOS	5,00 [4,00;7,00]	5,00 [4,00;7,00]	4,00 [3,00;6,00]	0,96 [0,94;0	0,005
			0,711,01	1,41 4,0	

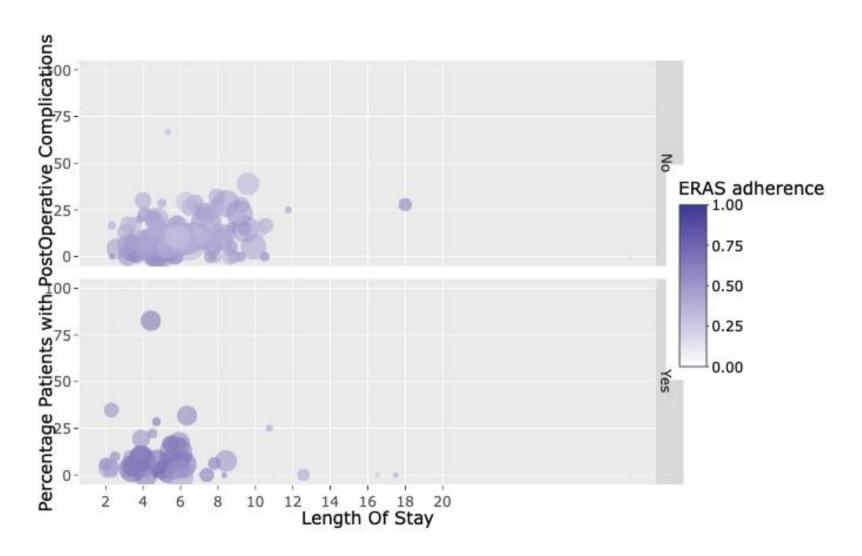
eFigure 9. Postoperative Outcomes and Enhanced Recovery After Surgery in ASA I-II Patients Grouped by ERAS Adherence

	Adherence <=43.80% Q1 (n=1497)	Adherence >43.80% but <=50.00% Q2 (n=773)	Adherence >50.00% but <=62.50% Q3 (n=1210)	Adherence >62.50% Q4 (n=1047)	Favours Favour Q4 Q1	odds Ratio (95% CI)	P Value
Complications	156 (10,42%)	67 (8,67%)	89 (7,36%)	90 (8,60%)	+	0,81 [0,61;1,06]	0,125
Moderate to severe complications	79 (5,28%)	41 (5,30%)	43 (3,55%)	31 (2,96%)	-	0,55 [0,35;0,83]	0,004
Survival	1497 (100,00%)	773 (100,00%)	1210 (100,00%)	1047 (100,00%)	)	Ref.	Ref.
Readmision	16 (1,07%)	13 (1,68%)	21 (1,74%)	14 (1,34%)	•	1,26 [0,60;2,61]	0,540
Acute Kidney Injury	10 (0,67%)	0 (0,00%)	8 (0,66%)	10 (0,96%)		1,43 [0,58;3,55]	0,429
Acute Respiratory Distress Syndrome	2 (0,13%)	0 (0,00%)	0 (0,00%)	1 (0,10%)	-	0,76 [0,02;9,41]	0,835
Pneumonia	5 (0,33%)	0 (0,00%)	0 (0,00%)	0 (0,00%)		. [.;.]	
Arrhythmia	5 (0,33%)	4 (0,52%)	5 (0,41%)	7 (0,67%)	-	1,99 [0,62;6,94]	0,246
Myocardial infarction	2 (0,13%)	0 (0,00%)	0 (0,00%)	2 (0,19%)		1,43 [0,15;13,76]	0,737
Myocardial injury after non-cardiac surgery	2 (0,13%)	0 (0,00%)	0 (0,00%)	0 (0,00%)		. [.;.]	
Cardiac arrest: No	0 (0,00%)	1 (0,13%)	0 (0,00%)	0 (0,00%)		Ref.	Ref.
Pulmonary oedema	1 (0,07%)	1 (0,13%)	1 (0,08%)	1 (0,10%)		1,43 [0,04;55,81]	0,823
Deep veinn thrombosis	5 (0,33%)	2 (0,26%)	3 (0,25%)	3 (0,29%)	-	0,87 [0,17;3,72]	0,859
Pulmonary embolism	2 (0,13%)	0 (0,00%)	1 (0,08%)	0 (0,00%)		. [.;.]	
Stroke: No	1497 (100,00%)	773 (100,00%)	1210 (100,00%)	1047 (100,00%)	)	Ref.	Ref.
Infection (uncertain source)	12 (0,80%)	1 (0,13%)	3 (0,25%)	1 (0,10%)		0,13 [0,01;0,69]	0,011
Infection (bloodstream)	5 (0,33%)	3 (0,39%)	9 (0,74%)	3 (0,29%)	-	0,87 [0,17;3,72]	0,859
Surgical site infection (superficial)	18 (1,20%)	16 (2,07%)	17 (1,40%)	13 (1,24%)		1,04 [0,49;2,12]	0,923
Surgical site infection (Deep)	3 (0,20%)	1 (0,13%)	9 (0,74%)	2 (0,19%)	-	0,98 [0,11;6,42]	0,980
Periprosthetic infection	0 (0,00%)	0 (0,00%)	4 (0,33%)	2 (0,19%)		. [.;.]	÷
Urinary tract infection	13 (0,87%)	5 (0,65%)	6 (0,50%)	6 (0,57%)		0,67 [0,23;1,71]	0,410
Paralytic ileus	13 (0,87%)	9 (1,16%)	5 (0,41%)	4 (0,38%)	-	0,45 [0,12;1,29]	0,144
Postoperative hemorrhage	59 (3,94%)	24 (3,10%)	24 (1,98%)	15 (1,43%)	•	0,36 [0,19;0,62]	<0,001
Surgical complicactions	22 (1,47%)	6 (0,78%)	14 (1,16%)	5 (0,48%)		0,33 [0,11;0,81]	0,014
LOS	5,00 [4,00;6,00]	4,00 [3,00;6,00]	4,00 [3,00;6,00]	4,00 [3,00;5,00]	0,016 0,250 4,00	0,97 [0,95;0,98]	<0,001

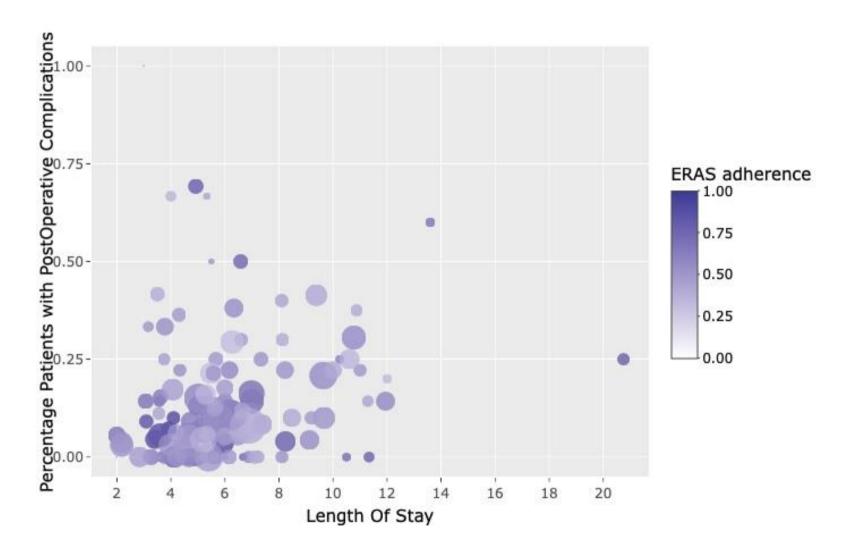
eFigure 10. Postoperative Outcomes and Enhanced Recovery After Surgery in ASA III-IV Patients Grouped by ERAS Adherence

	Adherence <=43.75% Q1 (n=579)	Adherence >43.75% but <=50.00% Q2 (n=306)	Adherence >50.00% but <=62.50% Q3 (n=425)	Adherence >62.50% Q4 (n=308)		Odds Ratio (95% CI)	P Value
Complications	114 (19,69%)	49 (16,01%)	61 (14,35%)	54 (17,53%)	+	0,87 [0,60;1,24]	0,438
Moderate to severe complications	64 (11,05%)	33 (10,78%)	33 (7,76%)	28 (9,09%)	+	0,81 [0,50;1,28]	0,365
Survival	576 (99,48%)	306 (100,00%)	425 (100,00%)	308 (100,00%)		. [.;.]	
Readmision	17 (2,94%)	11 (3,59%)	13 (3,06%)	13 (4,22%)	+	1,46 [0,68;3,05]	0,322
Acute Kidney Injury	21 (3,63%)	10 (3,27%)	14 (3,29%)	8 (2,60%)	-	0,72 [0,29;1,59]	0,425
Acute Respiratory Distress Syndrome	0 (0,00%)	0 (0,00%)	0 (0,00%)	2 (0,65%)		. [.;.]	
Pneumonia	4 (0,69%)	2 (0,65%)	2 (0,47%)	2 (0,65%)	-	0,97 [0,12;5,33]	0,976
Arrhythmia	8 (1,38%)	7 (2,29%)	4 (0,94%)	3 (0,97%)	-	0,72 [0,15;2,59]	0,636
Myocardial infarction	2 (0,35%)	0 (0,00%)	1 (0,24%)	1 (0,32%)	-	1,00 [0,03;12,40]	1,000
Myocardial injury after non-cardiac surgery	1 (0,17%)	2 (0,65%)	2 (0,47%)	3 (0,97%)		5,21 [0,60;149,87]	0,138
Cardiac arrest	2 (0,35%)	0 (0,00%)	1 (0,24%)	0 (0,00%)		. [.;.]	
Pulmonary oedema	4 (0,69%)	3 (0,98%)	1 (0,24%)	1 (0,32%)		0,52 [0,02;3,75]	0,551
Deep veinn thrombosis	2 (0,35%)	3 (0,98%)	0 (0,00%)	4 (1,30%)		3,66 [0,67;29,72]	0,135
Pulmonary embolism	0 (0,00%)	2 (0,65%)	0 (0,00%)	1 (0,32%)		. [.;.]	×
Stroke	1 (0,17%)	0 (0,00%)	1 (0,24%)	1 (0,32%)		1,88 [0,05;73,49]	0,694
Infection (uncertain source)	5 (0,86%)	1 (0,33%)	1 (0,24%)	2 (0,65%)	-	0,78 [0,10;3,83]	0,776
Infection (bloodstream)	9 (1,55%)	3 (0,98%)	3 (0,71%)	1 (0,32%)		0,23 [0,01;1,27]	0,101
Surgical site infection (superficial)	17 (2,94%)	2 (0,65%)	10 (2,35%)	6 (1,95%)		0,67 [0,24;1,64]	0,393
Surgical site infection (Deep)	9 (1,55%)	0 (0,00%)	2 (0,47%)	3 (0,97%)		0,64 [0,14;2,22]	0,507
Periprosthetic infection	3 (0,52%)	0 (0,00%)	4 (0,94%)	0 (0,00%)		. [.;.]	T.
Urinary tract infection	6 (1,04%)	3 (0,98%)	5 (1,18%)	5 (1,62%)	-	1,58 [0,44;5,44]	0,466
Paralytic ileus	11 (1,90%)	0 (0,00%)	3 (0,71%)	4 (1,30%)	-	0,70 [0,19;2,09]	0,535
Postoperative hemorrhage	47 (8,12%)	25 (8,17%)	21 (4,94%)	16 (5,19%)	•	0,62 [0,34;1,10]	0,105
Surgical complicactions	15 (2,59%)	3 (0,98%)	7 (1,65%)	7 (2,27%)	-	0,89 [0,33;2,14]	0,793
LOS	5,00 [4,00;7,00]	5,00 [4,00;7,00]	5,00 [3,00;7,00]	4,00 [3,00;6,75]	0,016 0,500 2e+01	1,00 [0,97;1,02]	0,761

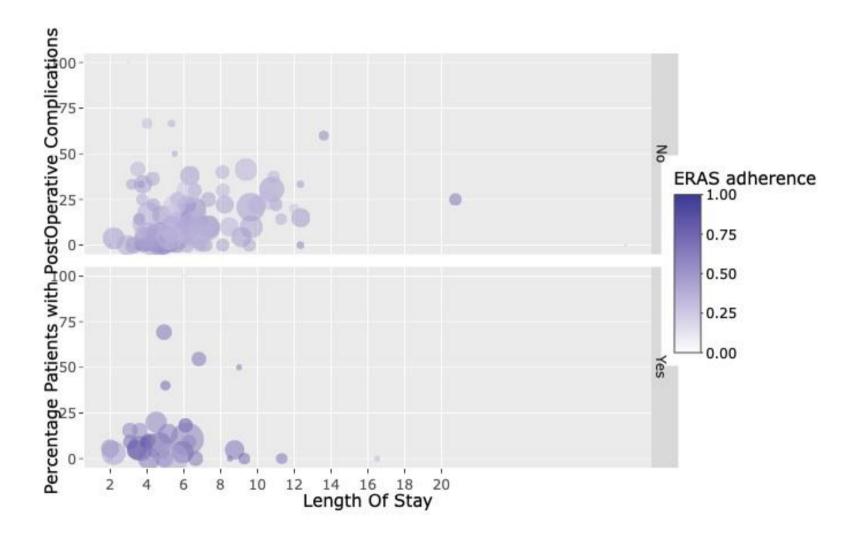
eFigure 11. Bubble Plot (Grouped by ERAS)



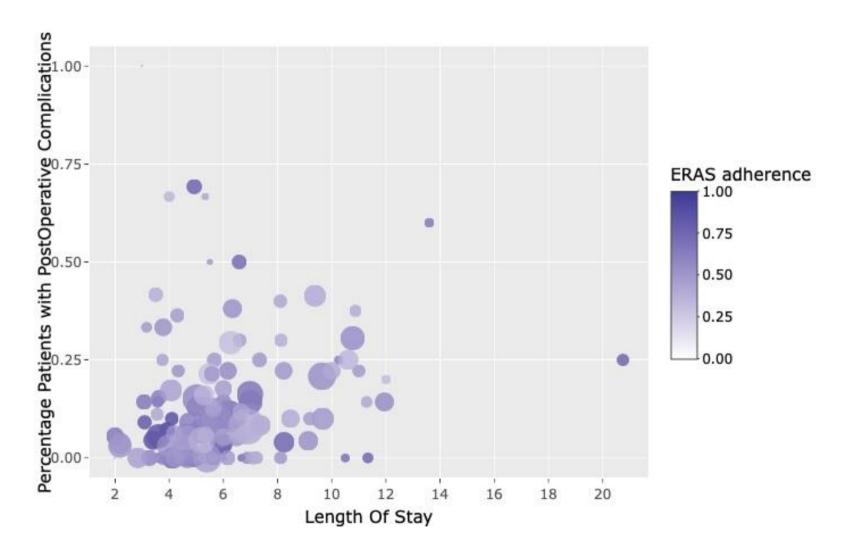
eFigure 12. Bubble Plot (THA Patients)



eFigure 13. Bubble Plot (THA Grouped by ERAS)



eFigure 14. Bubble Plot (TKA Patients)



eFigure 15. Bubble Plot (TKA Grouped by ERAS)

